Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

1
Ag84M

**United States
Department of
Agriculture**

Human Nutrition
Information
Service

Miscellaneous
Publication
Number 1457

Dietary Guidelines and Your Diet:

Home Economics Teacher's Guide

Acknowledgments

USDA Advisory Team—Laura Sims, Susan Welsh, and Carole Davis, Human Nutrition Information Service, USDA, and Sally Katt, Office of Governmental and Public Affairs, USDA

Teacher Advisory Panel—Leslie Hanna, McLean, Virginia; Emma King, Washington, D.C.; Phyllis Lamiman, Bethesda, Maryland; Stephanie Price, Fairfax, Virginia; Diane Thompson, Potomac, Maryland; Karen Tracey, Washington, D.C.

Writer and Developer—Roberta L. Duyff, St. Louis, Missouri

Editorial and Production Team—Johna L. Pierce and Gerald Smith, Human Nutrition Information Service, USDA

Design—Janice Proctor, Office of Governmental and Public Affairs, USDA

Project Coordination—Dianne Odland, Human Nutrition Information Service, USDA

November 1987

Contents

page
A Look at Dietary Guidance 3
The Teaching Kit: An Overview 4
Lessons
  1 The Fitness Report: Overview of the Dietary Guidelines 5
  2 Variety, Please!: Eat a Variety of Foods 8
  3 The Body Shop: Maintain Desirable Weight 13
  4 Choices: Avoid Too Much Fat, Saturated Fat, and Cholesterol 17
  5 Camp Fiberfield: Eat Foods with Adequate Starch and Fiber 22
  6 It's a Real Tradeoff!: Avoid Too Much Sugar 25
  7 A Scavenger Hunt—For Sodium: Avoid Too Much Sodium 29
  8 Just Say No! For Teens: Avoid Alcoholic Beverages and For Adults: If You Drink Alcoholic Beverages, Do So in Moderation 32
  9 Wanted—Good Food for Good Health: Summary 35
Self-Tests for Students (keyed to lesson number)
  How Does Your Diet Rate for Variety? (2) 38
  My Eating Habits: Where Are the Calories? (3) 39
  Let's Get Physical: A Contract for Fitness (3) 40
  How Do You Score on Fat? (4) 41
  Check Your Diet for Starch and Fiber (5) 41
  Rating Your Diet: How Sweet Is It? (6) 42
  Where's the Sodium in Your Diet? (7) 42
Program Evaluation 43

☆U.S. GOVERNMENT PRINTING OFFICE: 1987-516-000/80014

A Look at Dietary Guidance

What makes up a healthful diet? How can people make food choices that promote good health? Newspapers, magazines, books, radio, and television tell us what to eat. Many people are aware that diet may be important in chronic health conditions, such as heart disease, high blood pressure, tooth decay, diabetes, osteoporosis, and some forms of cancer. Yet sorting through information can be a difficult task! Sound dietary guidance, as provided by the Dietary Guidelines for Americans, is important in a world with so many food choices and so many sources of nutrition information.

The Dietary Guidelines for Americans, published by the Departments of Agriculture and Health and Human Services, are seven recommendations designed to help keep healthy Americans healthy and perhaps even improve their health. These Guidelines are straightforward, simple, qualitative recommendations for making food choices. They may be inappropriate, however, for those who follow special diets because of disease. The Guidelines represent the best advice that nutrition scientists can give currently. They will be revised as research provides more information.

Dietary Guidelines for Americans

- Eat a variety of foods.
- Maintain desirable weight.
- Avoid too much fat, saturated fat, and cholesterol.
- Eat foods with adequate starch and fiber.
- Avoid too much sugar.
- Avoid too much sodium.
- If you drink alcoholic beverages, do so in moderation. (For teens, "Avoid alcoholic beverages.")

The first two Guidelines form the framework of a healthy diet. "Eat a variety of foods" in amounts to provide nutrients needed for good health and calories to "maintain desirable weight." The other five Guidelines underscore qualities of a good diet—avoiding too much fat, saturated fatty acids, and cholesterol; sugars; sodium; and alcoholic beverages while consuming adequate starch and fiber.

The Dietary Guidelines offer flexibility for smart food decision making. The Guidelines don't suggest eliminating any food. Instead, they encourage wise choices from the vast and diverse supply of foods enjoyed by Americans. They help people select an assortment of foods which will not contribute too much fat, sugars, and sodium to their diets.

To help consumers choose a varied diet in line with the Dietary Guidelines, a new food guide, "A Pattern for Daily Food Choices," has been developed. This food guide goes beyond the "Basic Four" to help ensure selection of a diet with adequate nutrients and calories for good health. This food guide and how it differs from previous guides is explained in Lesson 2. The new guide emphasizes foods from five major groups—(1) breads, cereals, and other grain products; (2) fruits; (3) vegetables; (4) meat, poultry, fish, and alternates; and (5) milk, cheese, and yogurt—and cautions against having too much from an "other" group—fats, sweets, and alcoholic beverages.

Food alone won't guarantee good health. But following the Dietary Guidelines helps people get the nutrients they need and may reduce the risk of certain chronic diseases.

For More Information, Contact:

- Your local county Extension agent, public health nutritionist, or dietitian in hospitals or other community agencies.
- The Human Nutrition Information Service (HNIS) for a list of current publications on topics related to the Dietary Guidelines. Address queries to U.S. Department of Agriculture, HNIS, Room 325-A, 6505 Belcrest Road, Hyattsville, Maryland 20782, (301) 436-8617.
- The Food and Nutrition Information Center (FNIC) at USDA's National Agricultural Library. Request a copy of the "Information Alert" on Pathfinders from FNIC, National Agricultural Library, Room 304, Beltsville, Maryland 20705, (301) 344-3719. (Pathfinders are lists of print and audiovisual resources on a wide variety of nutrition topics.)

The Teaching Kit: An Overview

Goals and Objectives

The **Dietary Guidelines Teaching Kit** is designed to help you make nutrition education contemporary, interesting, and viable. The instructional plan goes beyond the food group approach and helps you teach students to use the Dietary Guidelines as a tool for making wise food choices throughout life.

Students who complete the learning activities outlined in the **Teacher's Guide** should be able to—
- discuss the purpose of the Dietary Guidelines for Americans,
- explain ways to select and prepare food to follow the Dietary Guidelines, and
- apply the Dietary Guidelines to their everyday food decisions.

Components

The **Dietary Guidelines Teaching Kit** has three instructional components:

Nutrition and Your Health: Dietary Guidelines for Americans (HG 232). This pamphlet, which presents the seven Dietary Guidelines, serves as an excellent classroom reference for explaining the relationship between diet and health.

Dietary Guidelines and Your Diet (HG 232-1 through 232-7). These seven short bulletins provide detailed, "how-to" information for each Guideline. Although the bulletins were developed for use by adult household food managers, the **Teacher's Guide** adapts them for classroom use. Since the **Teacher's Guide** refers to them in each lesson, you are encouraged to read them ahead of time.

Home Economics Teacher's Guide (MP 1457). Nine lessons, which include self-tests and activity masters, help you incorporate the Dietary Guidelines into your curriculum.
- Lesson 1 is an overview of the Dietary Guidelines.
- Lessons 2 through 8 each focus on one of the seven Guidelines.
- Lesson 9 provides a summary which reinforces previous learning and helps students incorporate the Guidelines into a plan of action for good health.

The Guideline on alcoholic beverages was written for adults, for whom drinking is legal. For teens, the message is "avoid alcoholic beverages." Related activities in Lessons 1, 8, and 9 *do not* imply that drinking, even in moderation, is appropriate for this age group. However, these activities can be omitted without affecting flow of the lessons or instructional unit. If desired, you can also omit reference to alcoholic beverages when discussing the "fats, sweets, and alcoholic beverages" food group.

The lessons in this **Guide** were designed for home economics instruction at either the junior or senior high level. They may be presented as a unit or incorporated into comprehensive foods, nutrition, and other home economics classes. The lessons provide a variety of learning strategies to help motivate students and increase their understanding and use of the Dietary Guidelines. Hands-on activities encourage critical thinking and problem solving.

Depending on the length of your classes, class size, student interest, and your teaching style, some lessons may require longer to complete than indicated.

The nine key lessons can be taught without access to a foods laboratory. However, food preparation activities are included as supplemental activities. Suggested recipes incorporate all of the Dietary Guidelines principles.

To make the lessons relevant and to complete the self-tests more accurately, students should be encouraged to complete a 7-day food record prior to Lesson 2. These records will be used in Lessons 2 through 7 and Lesson 9. Explain that (1) this is a personal record that no one else will see, (2) this record will help them learn more about their own food patterns, and (3) they should record everything—food, beverages, snacks—that they put in their mouths for 7 days. Provide them with seven sheets, one for each day, to keep their records. Suggested headings are:

When eaten	What food	How prepared (baked, fried, etc.)	How much eaten	Where eaten

Check with students at midweek; they may need an incentive to continue the record. Note that if students don't complete the 7-day food record, they can answer questions on the self-tests from recall.

Lesson 1

The Fitness Report

Overview of the Dietary Guidelines

Objectives...

After completing the lesson, students will be able to—
- state the Dietary Guidelines,
- define a health risk, and
- give reasons for following the Dietary Guidelines.

Key Points...

1. Dietary Guidelines are recommendations to help healthy people maintain and perhaps improve their health.
2. A good diet is based on variety and moderation.
3. Variety means eating enough foods from the five major food groups—(1) breads, cereals, and other grain products; (2) fruits; (3) vegetables; (4) meat, poultry, fish, and alternates; and (5) milk, cheese, and yogurt—to provide the nutrients and fiber needed for good health and the calories needed to maintain desirable weight.
4. Moderation means not eating too much of foods high in fat (saturated fatty acids and cholesterol), sugars, and sodium.
5. A risk factor is a condition that may increase the chance that something will happen.
6. For some people, certain types of diets are risk factors for chronic health conditions, such as heart disease, high blood pressure, tooth decay, adult-onset diabetes, osteoporosis, some forms of cancer, and liver disease.

Notes to You...

- Lesson 1 creates an awareness of the Dietary Guidelines as a tool for making food choices. The lesson can stand alone if you can devote only one session to the Guidelines.
- If you teach only this lesson, you may wish to include information on the food guide, "A Pattern for Daily Food Choices," as presented in Lesson 2 and on page 6 of the bulletin on variety (HG 232-1).
- This lesson may be incorporated into foods units on menu planning or nutrients or into a wellness unit for a family health course.
- For the Guideline on fat, you may teach students to avoid too much total fat, rather than present the more complex issue of saturated fatty acids and cholesterol.
- Some may not wish to teach the Guideline on alcoholic beverages for teens: "Avoid alcoholic beverages." Lesson 1 allows this flexibility.

Materials for Learning...

large magazine photo of healthy teenagers
chalkboard, chalk *or* large sheet of paper, marker
2 large sheets of paper and a marker for each student group
tape
"The Fitness Report" activity sheet from page 7

★ ★ ★ ★

- On the chalkboard or large paper, write the seven (six) Dietary Guidelines. Cover them.
- Duplicate "The Fitness Report" activity sheet for each student.

Lesson Plan...

1 Hold up a large photo of healthy teens. Ask:
- **What do you think when you see these teens?** (Healthy, energetic, and good appearance.)
- **Why do you think they look so healthy?** (Food choices are one factor affecting their health, energy level, and appearance.)

2 Have students create their own set of dietary guidelines for good health. Say:
- **Imagine. You are food and nutrition experts called together to establish five to ten general recommendations about eating to help healthy Americans—including teenagers—maintain and perhaps improve their health.** Write this task on the board or large sheet of paper.
- **Your recommendations will be called "dietary guidelines." Millions of people will use them to make food choices. Work in committees. First decide what's right and what's wrong with American diets; write ideas on a large sheet of paper. Then brainstorm a list of dietary guidelines and write them on another sheet. Each committee will present its guidelines to the "conference."**

Divide the class into committees. Distribute two large sheets of paper and a marker to each group. Give students time to work. Then invite each committee to hang its guidelines on the wall and present its recommendations and reasoning to the "conference."

3 Present the Dietary Guidelines for Americans. For background, refer to the *Dietary Guidelines for Americans* pamphlet (HG 232). Explain:

- **Just as you worked together, nutrition experts developed the Dietary Guidelines for Americans. They were published by the U.S. Government in 1980 and revised in 1985.**
- **The Dietary Guidelines are recommendations about eating to help healthy Americans—not just teenagers—maintain and perhaps improve their health.**
- **The Dietary Guidelines weren't designed to make you give up any foods. Instead they recommend eating a variety of foods to help you get the nutrients and fiber you need for good health and enough calories to maintain your desirable weight, without too much fat (saturated fatty acids, cholesterol), sugars, and sodium.**

Display and go over the Dietary Guidelines with students. Clarify terms they don't understand:

- Varied diet—One with adequate servings from the five major food groups: (1) breads, cereals, and other grain products; (2) fruits; (3) vegetables; (4) meat, poultry, fish, and alternates; and (5) milk, cheese, and yogurt.
- Desirable weight—Depends on factors such as height, age, sex, frame size, and body shape.
- (optional) Saturated fatty acids—Fats found mainly in foods of animal origin. Some vegetable fats, such as coconut and palm oils—used in margarine, shortenings, salad oils, and many processed food mixtures—also contain large amounts.
- (optional) Cholesterol—A fat-like substance found in all animal foods, especially egg yolks and organ meats such as liver. The body also makes it. Foods of vegetable origin don't contain it.
- Starch—A complex carbohydrate in cereals, bread, rice, pasta, dry beans, and some vegetables, such as potatoes.
- Fiber—Parts of plants that can't be digested, adding bulk to the diet and moving waste through the digestive system.
- Sugars—Common table sugar and other kinds of sugars added to foods, such as brown sugar, syrups, molasses, and corn sweeteners. Sugars also occur naturally in foods.
- Sodium—A mineral found in table salt (sodium chloride) and added to many processed foods. Sodium also occurs naturally in foods.

4 Have students compare the Dietary Guidelines with their own recommendations. Ask:

- **How do your guidelines compare with those established by scientists of the U.S. Government?**

Point out:

- **Two Dietary Guidelines form the framework of a diet that can help you maintain or even improve your health—"Eat a variety of foods" and "maintain desirable weight." The others describe qualities of good diets.**

5 Discuss the reasons for establishing the Dietary Guidelines. Ask:

- **Why have Dietary Guidelines been developed?**

Point out:

- **No one food or group of foods provides all of the over 40 nutrients in amounts your body needs. To get these nutrients, you must eat a variety of foods.**
- **Many Americans are overweight because their diets provide more calories than they expend.**
- **American diets, on average, are high in fat, sugars, and sodium and are low in fiber. Such diets may be risk factors for certain chronic diseases.**
- **A risk factor is a condition that may increase the chance that something will happen. For example, you may have a greater risk of having an accident if you ride a bike on an expressway than on a country road, but that doesn't mean you'll have an accident. Likewise, obesity is a risk factor for the disease, adult-onset diabetes. This means that if you have been obese much of your life, you may have a greater chance of developing adult-onset diabetes. But being obese doesn't mean you'll get the disease for sure.**
- **Obesity is a risk factor for high blood pressure, heart disease, strokes, adult-onset diabetes, some cancers, and other conditions.**
- **A diet high in fat (especially saturated fatty acids) increases the chances that some people will develop heart disease and strokes.**
- **A low-fiber diet increases the chances that some people will develop certain health conditions involving the colon, such as chronic constipation.**
- **A high-sugar diet increases the chances that some people will develop tooth decay.**
- **A high-sodium diet increases the chances that some people will develop high blood pressure.**
- (optional)—**Consuming alcoholic beverages can increase the risk of driving-related accidents, damage to an unborn baby, liver disease, and some forms of cancer.**

6 Have students write a "press release" announcing the Dietary Guidelines. Explain:

- **Imagine again. You have just completed your conference and agreed on the Dietary Guidelines for Americans. Now you must get the message out to the public—perhaps to your local paper or to a teen health magazine.**

Distribute the activity sheet, "The Fitness Report." Have students write a news story with the five "w's" and one "h" used by reporters: *what* the Dietary Guidelines are, *who* they are meant for, *why* and *how* they were developed, as well as *where* and *when*. The article may include one or two tips for meeting each Guideline. Have students keep their "press releases" for reference throughout the Dietary Guidelines unit.

Activity Sheet for Lesson 1

THE FITNESS REPORT

. . . wishing you good health for a lifetime

For Immediate Release

Contact: ______________________
(student's name)

Town: ______________________
(student's town)

Dietary Guidelines for Americans Released!

What's the story? The Dietary Guidelines are big health news! Get the message out with your news story: *what* the Dietary Guidelines are, *who* they're meant for, *why, how, where,* and *when* they were developed. As a health reporter, you might include one or two tips for following each Guideline.

Lesson 2

Variety, Please!

Eat a Variety of Foods

Objectives...

After completing the lesson, students will be able to—

- explain the importance of a varied diet,
- identify nutrients provided by the foods in each of the five major food groups,
- discuss why they should avoid too much from the fats, sweets, and alcoholic beverages group,
- evaluate the variety of food in their diet, and
- plan a healthful day's menu with adequate servings from each of the five major food groups.

Key Points...

1. No one food supplies all of the essential nutrients in the amounts needed for health.

2. Each of the five major food groups—(1) breads, cereals, and other grain products; (2) fruits; (3) vegetables; (4) meat, poultry, fish, and alternates; (5) milk, cheese, and yogurt—contributes certain nutrients essential for health.

3. A varied diet includes adequate servings from each of the five major food groups and not too much from the fats, sweets, and alcoholic beverages group.

Notes to You...

- This lesson may be taught as part of a foods unit on menu planning.
- For this lesson, students already should be familiar with nutrients and their sources. Refer to pages 2 through 5 of the bulletin on variety (HG 232-1) if they need review.
- The bulletin on variety presents a "Pattern for Daily Food Choices" that may be new to you. It differs from earlier four- and five-food group guides in the way foods are grouped and the number of servings suggested. Earlier food guides continue to be useful as simple tools for describing a nutritious diet. The new, more complex "Pattern for Daily Food Choices" (1) suggests ranges of servings for most food groups that will provide total calorie and nutrient needs and (2) addresses Dietary Guidelines concepts. Your students, for whom the simpler four food group guide may be "old hat," are probably ready to understand and use this new pattern in their attempt to understand and follow the Dietary Guidelines.

  The new food guide features five major food groups—(1) breads, cereals, and other grain products; (2) fruits; (3) vegetables; (4) meat, poultry, fish, and alternates; and (5) milk, cheese, and yogurt. An "other" category includes fat, sweets, and alcoholic beverages. In addition to fruits and vegetables being separate groups in this guide, important food subgroups such as whole grains and dark-green leafy vegetables are highlighted.
- Prior to Lesson 2, have students complete a 7-day food record of all their meals and snacks. See page 4 of this teacher's guide for instructions. These completed food records will also be used as a reference for Lessons 2 through 7 and Lesson 9. Have students keep them.
- You may wish to teach this lesson over two class periods to allow a longer time for the role play activities and discussion.

Materials for Learning...

banana
glass of water
chalkboard, chalk *or* large sheets of paper, marker
"How Does Your Diet Rate for Variety?" self-test from page 38
7-day food record for each student (See Notes to You...)
unpared apple
empty soft drink can and candy bar wrapper
"Variety, Please!" activity sheet from page 12
paper for student activity
"A Pattern for Daily Food Choices" from page 6 of the bulletin on variety (HG 232-1)

★ ★ ★ ★

- Duplicate "How Does Your Diet Rate for Variety?", "A Pattern for Daily Food Choices," and "Variety, Please!" for each student.
- Duplicate one copy of "Variety, Please!" for role-play. Cut the sheet to make seven role-play cards.

Lesson Plan...

1 Begin the lesson by having students react to a hypothetical fad diet. Hold up a banana and a glass of water and say:

- **A popular magazine once promoted this weight-loss diet—the "all-you-can-eat banana diet." For every meal and every snack you eat only bananas and drink only water.**
- **How would you judge this diet?** (No variety, lacks essential nutrients, uninteresting, won't be followed long, doesn't establish good eating habits that can be maintained for life.)

2 Review the concept of the Dietary Guidelines and introduce the Guideline for this lesson. Say:

- **Today you'll learn more about the importance of variety as we talk about one of the Dietary Guidelines—"Eat a variety of foods."** Write the Guideline on the board.
- **Why do you think variety is important?** (No one food supplies all essential nutrients in the amounts you need.)

3 Have students evaluate their diets for variety. Distribute the self-test, "How Does Your Diet Rate for Variety?" Have students use the 7-day food records they completed earlier as their reference. Say:

- **Count the number of different foods you ate each day during the 7 days. What was your average?** Accept and compare student answers.
- **That's one way to check for variety. A varied diet means having several servings from each of the five major food groups.**
- **Look at your food choices to see if each of the five major food groups is represented.**

Give students time to complete the self-test. Explain any terms they don't know, such as "whole grains," "lean meat," and "meat alternates." Discuss students' answers on the self-test:

- **Do you think your food choices on those 7 days were typical for you? Why?** If not, ask: **Why not?** Reasons may include illness or special occasions.
- **How many of you have most of your checkmarks in the last two columns?**
- **What do you think your answers say about your diet?**

Go over each question, referring to the answers on page 8 of the bulletin on variety, in your discussion of each question.

4 Introduce the food groups listed on page 6 of the bulletin on variety. Say:

- **Now that you've judged your own diet, what is a varied diet?** (Several servings of foods from each of the five major food groups each day; select different foods within each group.)
- **When you were younger, perhaps you learned about the four food groups. What are they?**
- **To help people select a variety of foods, foods have been classified into five major food groups and an "other" category.** Write the name of each group on the board.
- **The five food groups are much the same as the "basic four," except vegetables and fruits are split into two groups. The "other" category—fats, sweets, and alcoholic beverages—is just extra, providing mainly calories with few nutrients.**
- **How might you plan a menu with variety?** (Use the food groups.)

5 Talk about the food groups and mixed dishes using role-play as a discussion starter. Give each of seven volunteers a card from "Variety, Please!" describing one scenario and any props. Explain that the volunteers will read and act out the role-play for the class. Give them several minutes to prepare. Tell the class:

- **These students will pretend to be teenagers who have a decision or question related to the food groups. They need sound nutrition advice from you.**

6 Have the student role-play scenario 1 on *breads, cereals, and other grain products*. Encourage the class to offer advice. Cover the points from pages 2 and 6 of the bulletin on variety in your discussion. You may also refer to page 2 of the bulletin on starch and fiber (HG 232-4) for background on grain products:

- **Grain products contribute starch, several B vitamins, and minerals to a balanced diet.**
- **Starch—a carbohydrate—is an excellent source of energy, which is important for an athlete or anyone else.**
- **B vitamins have many functions, including the release of energy from carbohydrates.**
- **Whole grains are good sources of fiber.**
- **Dietary fiber provides bulk and helps the body eliminate wastes.**
- **Some people think that grain products are fattening. This isn't true. But what you put on them can add lots of calories.**
- **Six to 11 servings a day are recommended, depending on your age, size, and activity level. Several servings should be whole-grain products.** Tell students what a serving size is.

7 Have the student role-play scenario 2 on *fruit*. Encourage the class to offer advice. Cover the points from pages 5 and 6 of the bulletin on variety in your discussion:

- **Fruit provides a number of important vitamins and minerals, and many are particularly good sources of vitamins C and A, as well as fiber.**

- **The nutrient content of fruits differ, so you need variety within this food group.**
- **Citrus fruits are good sources of vitamin C.**
- **Deep-yellow fruits are good sources of vitamin A.**
- **Apples and other fruits, especially those with edible skins, stems, or seeds, are good sources of fiber.**
- **One fruit serving a day isn't enough. The recommendation is two to four servings daily.** Tell students what one serving is.

8 Have the student role-play scenario 3 on *vegetables*. Encourage the class to offer advice. Cover the points from pages 4 and 6 of the bulletin on variety in your discussion:

- **All vegetables provide dietary fiber.**
- **Vegetables differ in the amount of nutrients they provide, so it's important to eat a variety of vegetables.**
- **Dark-green vegetables provide vitamins A and C and other nutrients.**
- **Deep-yellow vegetables are good sources of vitamin A.**
- **Starchy vegetables are good sources of starch and dry beans and peas are good sources of both starch and fiber. Dry beans and peas also provide protein and can be used as alternates for meat.**
- **There are many other vegetables that don't fit into those categories that still provide a lot of nutrients. How many can you think of?** Solicit students' answers, and refer to the list on page 7 of the bulletin on variety.
- **The recommendation for vegetables is three to five servings daily, including dark-green vegetables and dry beans or peas several times a week.** Tell students what one serving is.

9 Have the student role-play scenario 4 on *milk, cheese, and yogurt*. Encourage the class to offer advice. Cover the points from pages 3 and 6 of the bulletin on variety in your discussion:

- **Milk, cheese, and yogurt are good sources of calcium, as well as protein, riboflavin, and other nutrients.**
- **Many teenagers don't get enough calcium. Your bones are still forming even if you've stopped growing taller. You still need calcium throughout your adult years—to *maintain* your bones.**
- **A teenager needs at least three servings daily.** Tell students what one serving is.
- **Many scientists believe that getting adequate calcium throughout life and doing weight-bearing exercises, such as walking, may help prevent a bone disorder called "osteoporosis" later in life.**

10 Have the student role-play scenario 5 on *meat, poultry, fish, and alternates*. Encourage the class to offer advice. Cover the points from pages 5 and 6 of the bulletin on variety in your discussion:

- **Eating one kind of meat prepared several different ways is one type of variety. But here, variety means eating several servings from each of the five major food groups.**
- **Meat, poultry, fish, eggs, legumes (dry beans), nuts, and seeds are good sources of protein, iron and other minerals, and certain B vitamins.**
- **Protein is a building block needed for growth, maintenance, and replacement of body cells. Extra protein not needed for these purposes supplies energy, or it changes to body fat.**
- **Iron forms the part of the blood that supplies oxygen to body cells.**
- **Meat, poultry, fish, and eggs also provide fat and cholesterol.** See Lesson 4; you may not want to present cholesterol at your grade level.
- **For most people, getting enough food from this food group isn't a problem. People need two to three servings daily, totaling 5 to 7 ounces lean.** Tell students what one serving is.
- **To avoid too much fat, choose lean meat with visible fat removed, chicken with the skin removed, and cook by baking or broiling rather than frying.**

11 Have the student role-play scenario 6 on *fats, sweets, and alcoholic beverages*. Encourage the class to offer advice. Cover these points in your discussion:

- **These foods don't belong in the five major food groups—they're in an "other" group that provides "calorie-dense," not "nutrient-dense," foods.**
- **Soft drinks and most candies are high in sugars, so they're high-calorie, low-nutrient foods.**
- **Foods such as butter, margarine, salad oil, and mayonnaise belong in this group, too. They're mainly fat, so they're also high-calorie, low-nutrient foods.**
- **Eating too many calorie-dense foods can make it easy to gain weight and may keep you from eating more nutritious foods.**
- **Avoid eating too many fats and sweets.**

Have students brainstorm a list of calorie-dense foods. Refer to page 7 of the bulletin on variety.

12 Have the student role-play scenario 7 on *mixed foods*. Encourage the class to offer advice. Cover the points from page 8 of the bulletin on variety in your discussion:

- **Many foods are mixtures of ingredients so they belong in several food groups.**

13 As evaluation, distribute the activity sheet "Variety, Please!" to each student. On a separate sheet of paper, have them write their own advice for each role-play scenario.

14 As homework, instruct students to choose three typical days in their 7-day food records to judge according to the food groups. Have them mark—
- "G" by all breads, cereals, and other grain products.
- "F" by all fruits.
- "V" by all vegetables.
- "MPFA" by all meat, poultry, fish, and alternates.
- "MCY" by all milk, cheese, and yogurt.
- "FS" by all fats and sweets.
- Mixed foods, such as pizza, will have several sets of initials.

Distribute "A Pattern for Daily Food Choices" from page 6 of the bulletin on variety. Go over the suggested daily servings and serving sizes. Have students add up the servings for each group; remind them that some of their foods may only be partial servings and some may be more than one serving. Have them compare their totals with food group recommendations and write menu changes that would help provide adequate servings from the five major food groups. Review the activity in class the next day.

Learning More...

1. *"Vegetables—Opportunities for Taste Adventures."* Have a tasting party of unusual raw vegetables—chayote sticks, diced kohlrabi, rutabaga sticks, jicama slices, snow peas, sprouts, Jerusalem artichokes, and turnip slices. Include other foods from the chart on page 7 of the bulletin on variety. Have students guess their names and usual cooking methods and describe tastes.
2. *"Fruits—Nature's Sweets."* Conduct an exotic fruit-tasting party with tropical fruits that may be new to students, such as Asian pear, guava, kiwifruit, mango, and papaya. Include other fruits from page 7 of the bulletin on variety.
3. *"Meat, Poultry, Fish, and Alternates from Many Lands."* Conduct a foods lab with recipes from around the world. Point out that there are many good protein sources: meat kebobs from the Middle East, moussaka from Greece, chicken curry from India, Finnan Haddie from Scotland, stirfried shrimp with vegetables from Japan, egg foo yung from China, and black bean and rice soup from the Caribbean. Have students think of ways to modify recipes to consider all of the Dietary Guidelines.
4. *"Breads of the World."* As part of a foreign foods unit, explain that bread is the main energy source in many parts of the world. Have each student choose a country and find out about the breads prepared there—the types of grains that are used, other ingredients, the bread's shape, how it's made, and how it's eaten.
5. *"Dairy Product Tradeoffs."* Using the tradeoff chart on page 3 of the bulletin on variety, have a student come to the front of the class and demonstrate dairy product tradeoffs with food packages. These foods have about the same amount of calcium and other nutrients as skim milk, but more fat or sugar. Some, like cheese, also have more sodium.
6. *"Cooking with Variety."* In a foods unit, have students prepare recipes using a variety of nutritious ingredients. Include recipes on pages 2 through 4 of the bulletin on variety: Cucumber Dip in units on dairy products or snacks; Whole-Wheat Apple Muffins in units on quick breads, fruits, or breakfast; and Vegetable Stirfry in units on vegetables or Chinese cooking.

Activity Sheet for Lesson 2

VARIETY, please!

Student's Name ____________________

Have you ever heard the phrase, "Variety is the Spice of Life?" Variety is also an essential quality for healthful food choices.

Read each of the seven statements. On separate paper, write your advice. Remember the motto, "Variety, Please!"

1

"You're offering me bread? Rice? Noodles? I'm in training—have to keep in shape for the team. Coach's rules, you know. I can't eat all those fattening foods! A couple of slices of bread are enough for me."

2

"Sure I eat fruit—an apple a day, just like the doctor said. (He/she holds up an apple.) In fact, apples really *are* my favorite snack. But now you say I need more variety. Why?"

3

"Eat your vegetables'—I've been hearing that since I was little. What's the big deal about veggies anyway? I eat beans, peas, corn, and potatoes, maybe a salad now and then—but that's it!"

4

"Milk ... that's a kid's food. I don't need it. Besides I stopped growing two years ago and really prefer soft drinks. Why do I need it anyway?"

5

"Variety? Sure. No problem. Know what I had this week? Burgers. A barbecue beef sandwich. Ground beef tacos. Meat sauce on my spaghetti. Meatloaf. A sub sandwich with roast beef. And a big, juicy steak! What do you think of that for variety? And I eat big servings of these kinds of foods at every meal! Pretty good, huh? Didn't I get the nutrients I need?"

6

"Soft drinks, candy bars! (Hold up packages of each of these foods.) Hey, many kids eat 'em. Skip breakfast or lunch? Just grab a soft drink and candy bar. Then it's soft drinks again after school, on a date, when you're studying. Why do people always seem to say, 'Watch out for these foods'?"

7

"*Your* food choices might fit into the food groups. But a lot of *mine don't*! Tell me this. What about foods like pizza? Where do they fit in?"

Lesson 3

The Body Shop

Maintain Desirable Weight

Objectives...

After completing the lesson, students will be able to—

- state the health risks related to excessive and insufficient energy intake,
- identify lower and higher calorie foods from all of the food groups,
- evaluate their eating patterns and habits for clues to caloric intake, and
- describe a healthy diet and an exercise plan that will help to achieve and maintain desirable weight.

Key Points...

1. Calories are a unit of energy.
2. Calories are needed for all body processes, such as maintenance of body temperature, growth and repair of bones and tissues, and movement of muscles including involuntary muscles such as the heart.
3. To maintain desirable weight, energy intake and calorie expenditure must balance.
4. A moderate, varied diet, combined with exercise, is the healthiest, most effective way to achieve and maintain desirable weight.
5. In some people, obesity increases the risk of high blood pressure, heart disease, strokes, adult-onset diabetes, certain cancers, and other conditions.
6. Severe weight loss can cause health problems.

Notes to You...

- This lesson may be incorporated into a unit on weight control.
- Before this lesson, have students bring in empty food containers with nutrition labels. Foods should represent all food groups.
- The height-weight chart on page 1 of the bulletin on desirable weight (HG 232-2) is meant for adults, not teenagers.

Lesson Plan...

Class Period 1:

1 Welcome students as customers to "The Body Shop," where teenagers learn to keep FIT—not too FAT and not too THIN. State the class objective:

- **Today in "The Body Shop," you'll learn about another Dietary Guideline—maintain desirable weight.** Write the Guideline on the board.
- **What Dietary Guideline have you learned about before?** (Eat a variety of foods.) Write that Guideline on the board.

Materials for Learning...

Class Period 1:

chalkboard, chalk *or* large sheets of paper, marker
stopwatch or clock with second hand
backpack filled with about 25 pounds of books
variety of food packages with nutrition labels, one per student (See Notes to You...)

Class Period 2:

"The Body Shop" activity sheet from page 16
"My Eating Habits: Where Are The Calories?" self-test from page 39
"Let's Get Physical: A Contract for Fitness" self-test from page 40

★ ★ ★ ★

- Duplicate "The Body Shop," "My Eating Habits: Where Are The Calories?" and "Let's Get Physical: A Contract for Fitness" for each student.

2 Invite "customers" to see an "in-store demonstration" on how excess body weight affects the body. Ask for three student volunteers.

- Define pulse (heartbeats per minute) and respiration rate (breaths per minute).
- Have one student measure the pulse and another take the respiration rate of the third student. Record his/her resting pulse and respiration rate on the board or paper. If you're not sure how to do this, ask the nurse or physical education teacher.
- Have the third student run in place for 2 minutes.
- Have the other students measure his/her pulse and respiration rate again. Record this data.
- Let the third student rest until his/her pulse and respiration rate return to normal. Then have him/her put on the 25-pound backpack and run in place for another 2 minutes. Stop if the exercise is too strenuous.
- Again have the students measure and record pulse and respiration rate. Ask:
- **How did (name)'s pulse and respiration**

rate compare before and after exercise? (Exercise increased pulse and breathing rate.)
- **What happened when he/she exercised with the heavy backpack?** (The pulse and the breathing rate were higher.)
- **How does excess body weight affect the body?** (The body—including the heart and the lungs—must work harder.)

3 Talk further about the link between obesity, underweight, and health. For background, refer to pages 1 and 2 of the bulletin on desirable weight and pages 9 through 11 of the *Dietary Guidelines for Americans* pamphlet (HG 232). First, review the definition of a risk factor from Lesson 1. Say:
- **When you first began learning about the Dietary Guidelines, we talked about risk factors. What is a risk factor?** (A condition that may increase the chance that something will happen.)
- **In some people, obesity (excess body fat) increases the risk of high blood pressure, adult-onset diabetes, heart disease, and other medical problems.**
- **Going overboard in losing weight can also cause health problems. Severe weight loss can result in nutrient deficiencies, menstrual irregularities, infertility, hair loss, skin changes, cold intolerance, severe constipation, psychiatric disturbances, and other complications.**
- **Anorexia nervosa and bulimia are serious eating disorders that can even result in death. They occur most often among teenage girls.** Refer to page 2 of the bulletin on desirable weight.

4 Discuss the concept of desirable weight:
- **Desirable weight is an individual matter. It depends on your sex, basic body structure, and where you are in your own growth and development.**
- **People have different body structures. You might be born with a small, medium, or large frame. You can't change your body type.**
- **The best goal is to be fit—to feel good and move well while maintaining desirable weight.**
- **If you're concerned about your weight, talk to a doctor or other health or nutrition specialist. They can help you decide what your best weight is.**
- **What does it take to be fit?** (Watch what you eat and include exercise.)

5 Talk about calories in a class discussion. For background, refer to page 2 of the bulletin on desirable weight. Write "calories" on the board. Say:
- **You've heard the word "calories" many times. What do you think of when you hear this word?** Accept any answer; answers may suggest a positive or negative connotation.
- **Calories aren't good or bad. They're just a unit for measuring energy.** Complete the equation on the board "Calories = energy."
- **Why do you need calories, or energy?** (For exercise and for body processes, such as maintenance, growth, and development.)
- **When you eat more calories than your body needs or when you burn fewer calories for maintenance and activity than you take in through food, you put on body fat. How then can you keep your best weight?** (Balance the calories you eat with the calories your body needs for growth, maintenance, and activity.)
- **What are the only ways to lose or to gain weight?** (To lose weight, decrease your calorie intake and/or increase your physical activity. To gain weight, increase your calorie intake.)

6 Using food packages, have students see what nutrients provide calories and explore the "calorie cost" of foods at "The Body Shop." Distribute the food packages, one per student, and explain the "Body Shop customer" task:
- **Each of these foods has a calorie cost, and some "cost" more than others. Imagine that you're still at "The Body Shop," comparing the "calorie cost" of food.**
- **The "calorie cost" of one serving of each food is listed on the nutrition label. Find the calories per serving on the label.**
- **Now arrange your food packages from least to most calories per serving.**
- **Does the calorie content of any of these foods surprise you? Why or why not?**
- **Why do you think some foods have more calories than others?** (Serving size, ingredients.)

Have students look at the nutrition label again to find carbohydrate, fat, and protein. Explain:
- **Calories come from carbohydrate, fat, and protein. Fat contributes more than twice as many calories as carbohydrate or protein.** On the board, write "carbohydrate and protein = 4 calories per gram; fat = 9 calories per gram."

7 Have students list qualities of a healthful, yet effective, weight-control diet. Say:
- **Instead of talking about what you *can't* eat, let's talk about what you *can* eat when you're watching calories.**
- **First, what's the general recommendation for a healthful diet?** (It should be based on variety and moderation.) Review definitions.
- **What are the qualities of a low-calorie diet?** (The same as for a healthful diet—variety and moderation. But calorie intake should be decreased by limiting intake of high-calorie, low-nutrient foods.)

- **Let's call foods rich in nutrients and low in calories the "shape-up foods." They're nutrient dense, not calorie dense. What foods can we list under this category?**

In small groups, have students brainstorm a long list of "shape-up foods." For ideas, refer to the chart "What Can I Eat?" on page 4 of the bulletin on desirable weight.

8 Wrap up the class with a review:
- **Why should you avoid obesity?** (To reduce risk of high blood pressure, adult-onset diabetes, heart disease, and other medical problems in later life.)
- **Why should you avoid too rapid weight loss or being too thin?** (To avoid health problems, some of which are serious.) See page 14 for examples.
- **How can you maintain your best weight?** (Balance calorie intake with calorie use.)

Class Period 2:

9 Continue the lesson with a review. Ask the questions in step 8. Also ask:
- **What does it mean to be fit?** (To be at your best weight, not too fat and not too thin, to feel good and move well.)

10 Use case studies on the activity sheet "The Body Shop" to help students discover more about desirable weight and food behavior. Distribute the activity sheet to each student. Explain:
- **Imagine that you work at "The Body Shop" and four customers have written in about food-related problems. Answer with advice to help them achieve or maintain their best weight—for a lifetime. Be sure to sign each letter.**

Discuss written answers as a class activity.

11 Have students evaluate their eating habits to find where their calories come from. Say:
- **What happens when you eat more calories than you need?** (You gain weight.) **Fewer calories?** (You lose weight.)

Distribute the self-test "My Eating Habits: Where Are The Calories?" Say:
- **Think about your eating habits while you do this self-test. What, how much, when, where, and why do you eat?**

Give students time to complete the self-test. Explain any terms on the test they don't know. Discuss students' responses to the self-test:
- **Look at the boxes you checked for "what and how much" you eat. What clues do they provide about where calories may be coming from?**
- **Look at the boxes you checked for "when, where, and why" you eat. What clues do they suggest about sources of calories?** Help students recognize that these factors may affect what and how much they eat.
- **On the bottom of the self-test, write three eating habits you might change to help increase or decrease calories.** Point out that students who need to gain weight should eat more food from the five major food groups and still watch fat and sugars. Refer to discussion of the self-test on page 3 of the bulletin on desirable weight for ways to modify "problem" eating habits.

12 Talk about the importance of exercise, then have students make a personal contract to be physically active. For background, refer to page 7 of the bulletin on desirable weight. Point out:
- **Exercise helps make you fit.**
- **To maintain your own best weight, the calories you consume must equal the calories you need for growth, maintenance, and activity.**
- **There are many ways to include physical activity in your daily routine.**
- **The number of calories your body burns in physical activity depends on how strenuous the activity is, how long it lasts, and your weight.**

Distribute the self-test "Let's Get Physical: A Contract for Fitness." Have students identify physical activities that are best for them, then make a contract with themselves to take action and get (or keep) fit. Give students several minutes to complete *and sign* the contract. Remind students:
- **This is a contract you make with yourself.**
- **The goal—fitness—is the same for everyone, but you can achieve that goal in many different ways with many different physical activities.**
- **The contract is for a lifetime.**

Learning More...

1. *"Cooking Trim and Slim."* In foods units, have students prepare lower-calorie recipes, such as those on pages 5 and 6 of the bulletin on desirable weight: Lemon-Baked Chicken in units on weight control or poultry; Potato Topper in units on weight control, vegetables, or dairy products; Low-Calorie French Dressing in units on weight control or salads; Beef with Chinese-Style Vegetables in units on weight control, main dishes, meat, vegetables, or Chinese cooking.
2. *"Fact or Fad?"* Have students evaluate weight-loss diets from popular magazines. Judge them for variety, adherence to other Dietary Guidelines, exercise tips, and other qualities that influence their effectiveness. Refer to page 2 of the bulletin on desirable weight for a statement on fad diets.

Activity Sheet for Lesson 3

THE BODY SHOP

MEMO

To: ______________________ (your name)
Employee

From: Trim Jim, Manager

Subject: The Body Shop Customer Letters

Thanks for coming to work early. As I told you the other day, The Body Shop gets hundreds of letters each month from customers. As an employee of the shop, would you please help by answering these four letters? Give advice to help them achieve or maintain their own best weight—that means tips on eating and exercise. Remember the "shape-up foods." We'll talk about your responses before you mail the letters out. See you later today!

Dear Body Shop:

After school I'm hungry. So my friend and I always stop at a fast-food place for an after-school snack. Usually I buy a burger, fries, a softdrink, sometimes a fruit pie. But sometimes we go across the street for nachos, a soft drink and whatever else looks good.

The problem is - my mom gets on my case because I eat so much. I keep reminding her that I'm a "growing boy." She dosen't buy that excuse anymore since the only place I've been growing lately is around the middle. What can I say? I like to eat. Any suggestions? (No way am I going on a diet!)

Signed, A Great Lover (of Food)

Dear Body Shop:

No one says I'm fat. *But* my friend Janet weighs 107 pounds, and I weigh 120 pounds. I think I weigh too much. What do you think? Should I go on a diet? What should I eat? What should I do?

Signed, Weighing and Waiting

Dear Body Shop:

I'm miserable. Mark and I broke up... we were going together *very steadily* for a whole month. Everything we did together was wonderful. We played tennis... we went swimming... and we took long, long walks and just talked, talked, talked. I felt so good!!!

Then it was all over. I really can't figure out why. But now I don't feel like doing anything except walking to the refrigerator. I just sit around watching T.V, eating one snack after another, and hoping the phone will ring. Trouble is, now I've gained 5 pounds waiting, snacking, and being upset. If he calls, I don't want him to see me.

Do you have any suggestions? I can't bear gaining one more pound!

Signed,
Gaining-by-the-minute

Dear Body Shop:

Help... I need some advice. Last year I was short with some of that not-so-cute baby fat that everybody seems to tease about. Then I turned into a teenager, and I shot up like crazy... four inches in one year!

Well I got rid of the fat, but now I look *too* skinny. And I'm always, always hungry. What should I eat? And what can I do so I look better?

Signed,
String Bean

Lesson 4

Choices

Avoid Too Much Fat, Saturated Fat, and Cholesterol

Objectives...

After completing the lesson, students will be able to—

- state the reasons for avoiding too much fat,
- compare the fat content of various foods,
- describe food preparation methods which influence the fat content of food,
- evaluate how often they eat high-fat foods, and
- reduce the fat content in a recipe.

Key Points...

1. A small amount of fat is needed in the diet.
2. For some people, diets high in fat (saturated fatty acids and cholesterol) increase the risk of premature heart attacks (before age 50) and strokes.
3. Butter, margarine, shortening, and oil are obvious sources of fat.
4. Some foods from two food groups—meat, poultry, fish, and alternates, and milk, cheese, and yogurt—are less obvious sources of fat. They are also important sources of essential nutrients.
5. Foods differ in the amount of fat they contain.
6. Food preparation methods influence the fat content of foods.

Notes to You...

- This lesson may be incorporated into foods units on fats and oils, meat and poultry, and dairy products and into a unit on eating out.
- The lesson encourages students to avoid too much total fat in their diets. For more advanced students, the more complex concepts of avoiding too much saturated fatty acids and cholesterol are addressed in supplemental activities 4 and 5.

Materials for Learning...

Class Period 1:
3 medium baking potatoes
10 cooked French fries
18 potato chips
1 tablespoon butter or margarine
5 teaspoons sour cream
cooking oil
measuring spoons
4 plates
4 small, clear containers
chalkboard, chalk *or* large sheets of paper, marker
"How Do You Score on Fat?" self-test from page 41
students' 7-day food records from Lesson 2

★ ★ ★ ★

- Duplicate "How Do You Score on Fat?" for each student.
- Place French fries, potato chips, butter or margarine, and sour cream each on a separate plate.
- Measure 9 teaspoons cooking oil into four small, clear containers—3 teaspoons into each of two containers, 2 teaspoons into one, and 1 teaspoon into another.
- On the chalkboard or large paper, copy the charts "Milk Tradeoffs," "Meat Tradeoffs," and "Fat Equivalents" from page 5 of the bulletin on fat (HG 232-3).

Class Period 2:
chalkboard, chalk *or* large sheets of paper, marker
"Choices" activity sheet from page 21
paper for pizza contest

★ ★ ★ ★

- Duplicate "Choices" for each student.

Lesson Plan...

Class Period 1:

1 Begin the class by having students discover the fat content of two favorite snack foods—French fries and potato chips. Display one medium baking potato and 2 teaspoons of oil. Ask:

- **Who would eat this combination of foods? Do these two foods eaten together appeal to you?**
- **A medium potato plus 2 teaspoons of oil is really another food that many of you eat, perhaps several times a week. What do you think that food is?** (French fries.)

Put a plate of ten cooked French fries beside the potato and 2 teaspoons of oil. Display another potato and 3 teaspoons of oil. Ask:

- **A medium potato plus 3 teaspoons of oil is another favorite teenage food. What food might be made of these ingredients?** (Potato chips.)

Put a plate of 18 potato chips beside the potato and 3 teaspoons of oil. Say:

- **Where did the oil come from?**
- **French fries and potato chips are both fried foods. Raw, sliced potatoes are cooked in very hot oil, and they absorb some of the fat.**
- **When you eat fried foods, especially those that are breaded and then fried, you're also eating some cooking oil. What other fried foods do you eat?**
- **Cooking oil is one kind of fat. Name some other fats.**

Display another medium potato. Say:

- **When we enjoy a baked potato, many of us add fat before we eat it. What toppings do you put on potatoes?**

Display 1 tablespoon butter or margarine and 5 teaspoons sour cream in front of the potato. Place 3 teaspoons oil beside butter or margarine. Say:

- **1 tablespoon butter or margarine adds 1 tablespoon fat.**

Place 1 teaspoon oil beside the sour cream. Say:

- **5 teaspoons sour cream adds 1 teaspoon fat.**
- **What does this display say about food?** (Sometimes fat is visible—butter and margarine; other times it's hidden—fries and chips.)
- **Today we'll learn about part of another Dietary Guideline—"Avoid too much fat."** Write this Guideline on the board.

2 Have students evaluate fat in their diets. Say:

- **Many people don't think about how much fat they eat. Do you?**

Distribute the self-test "How Do You Score on Fat?" Have students use their 7-day food records, completed earlier, as their reference. Say:

- **Score your food choices with this test to find out how often you eat foods high in fat.**

Give students time to complete the self-test. Explain any terms on the test they don't know, such as "heavily marbled" steaks and roasts (with visible fat between lean meat tissues), "whole milk," "high-fat cheeses," and "rich sauces and gravies." Discuss students' responses to the self-test:

- **Look at your answers. How many of you have several checkmarks in the last two columns?**
- **What might those checkmarks in the last two columns say about your diet for those 7 days?** (May be high in fat.)

3 Discuss the link between fat and health. For background, refer to pages 1 and 2 of the bulletin on fat and pages 15 and 16 of the *Dietary Guidelines for Americans* pamphlet (HG 232). Say:

- **Some fat is necessary in a balanced diet. It provides energy and helps your body absorb and use other nutrients in food.**
- **Many of us eat more fat than we need.**
- **Fat is a concentrated source of calories, providing more than twice as many calories as protein and carbohydrate.**
- **When you eat more calories than you need for growth, maintenance, and activity, you gain weight.**

Discuss high-fat diets as a risk factor for certain diseases. Ask:

- **We've talked about risk factors before. What is a risk factor?** (A condition that may increase the chance that something will happen.)
- **Eating a diet high in fat over a lifetime may increase your chance of getting a stroke or premature heart attack (before age 50).**
- **Smoking and obesity also increase the risk.**
- **What could you do now, as a teenager, that may reduce your chances of getting heart disease when you're older?** (Avoid too much fat, maintain desirable weight, stay fit and, if you smoke, stop.)

4 Through discussion, explain that within each food group, some foods are higher than others in fat. Review and discuss:

- **You've learned about the importance of eating a variety of foods. Why is this so important?** (To provide enough essential nutrients.)

Draw three columns on the board. Label the lefthand column "Food Groups."

- **To ensure variety, you learned to choose food from five major food groups. What are those food groups?** List students' responses in the left-hand column. (Breads, cereals, and other grain products; fruits; vegetables; meat, poultry, fish, and alternates; milk, cheese, and yogurt.)

Label the other columns "Higher Fat" and "Lower Fat."

- **Within each food group, some foods are higher in fat, and others are lower. You have the choice of which ones to eat, how often, and how much.**
- **In each food group what foods are higher in fat?** Write the correct student responses under the appropriate column. Refer to pages 6 and 7 of the bulletin on fat for the fat content of foods from each food group.
- **What foods in each group are lower in fat?** Write responses on the board.
- **You learned that some foods—fats, sweets, and alcoholic beverages—don't belong in any of these groups.** Write some high-fat foods that belong in this category on the board. Explain that fat can add up from these extras.

5 Have students use "tradeoff" charts posted on the board to brainstorm how they might moderate the fat in their diet. Refer to page 5 of the bulletin on fat for background information. Explain:

- **You don't need to cut higher fat foods out of your diet altogether. You just need to know how to "trade off" the fat in some of these foods.**

- **Trading off to cut down on fat is like budgeting. You just have so much fat to "spend." You can get all the nutrients you need without "spending" too much on fat. Or you can eat some higher fat food if you find ways to cut down on fat in other foods.**

Display the "Milk Tradeoffs," "Meat Tradeoffs," and "Fat Equivalents" charts made earlier. Ask:

- **What do these charts show?** (Fat is hidden in common foods; some foods can be substituted for others without losing nutrients.)

Divide the class into small groups to brainstorm ways they could trade off foods in their 7-day food records to trim the fat. Each group should come up with at least five recommendations. Then, as a class, discuss their ideas.

Class Period 2:

6 Review the previous day's lesson:

- **Why are health experts concerned about high-fat diets?** (They may increase the risk of heart attacks, strokes, and other conditions.)
- **Yesterday, after you scored your diet, you thought of ways you might avoid eating too much fat. What could you do?** Write answers on the board.

7 Distribute the activity sheet "Choices." Have students read the "newspaper." Discuss:

- **Food, nutrition, and health are constantly in the news. This issue of a fantasy newspaper, "Choices," focuses on fat in our diets.**
- **What message does the lead article, "Health News," have for teenagers?** (Now is the time to establish good eating habits—the result may mean a healthier life.)
- **On the board, we've listed some ways to trade off fat. Now that you've read the paper, what could we add to the list?** Answers should include the ten tips in the second article.
- **When you eat in a fast-food place, what choices might you make to trade off fat?**
- **Would you judge the fat content of the Pepperoni Cheese Pizza to be high or low?** (High.)
- **What suggests that this may be a higher fat recipe?** (It includes pepperoni, which tends to be high in fat; whole-milk cheese; onions sauteed in butter or margarine; olives, which are a higher fat food.)

8 Have teams of students create pizza recipes for the contest described in "Choices." Have them refer to the contest rules. Point out:

- **The goal of the contest is to create a lower fat pizza recipe that still tastes and looks good.**
- **Many of the tips you need for your pizza entry are provided in the "Choices" newspaper.**
- **In your recipe, underline the lower fat ingredients and recipe changes which helped lower the fat content.**

9 When the recipes are completed, have students describe to the class how they modified the pizza recipe to reduce the fat content. These are changes they might have made:

- Substitute lean meat or seafood for pepperoni, which is higher in fat.
- Saute onion in a nonstick pan with less butter or margarine.
- Instead of olives, which are high in fat, substitute vegetables such as green pepper, mushrooms, zucchini circles, or broccoli florets.
- Use lowfat mozzarella (part-skim milk) cheese instead of whole-milk cheese.

Encourage students to look for ways they can cut down on fat. Point out that *eliminating* recipe ingredients such as meat or cheese might not be the right way to cut down on fat. These foods provide other important nutrients in a total diet.

10 To check for knowledge at the close of the lesson, ask questions 1, 3, 5, and 7 from the true-false test on page 3 of the bulletin on fat.

Learning More...

1. *"Potato Toppers."* For a vegetable or a snack unit, extend the lesson opener by having students top baked potatoes with their own reduced fat concoctions. Bake potatoes ahead or have students cook them in a microwave oven. Provide toppers such as lowfat cheese, green onions, mushrooms, green pepper, Mexican salsa, and sprouts, among others. *Or* have students prepare the Potato Topper on page 5 of the bulletin on desirable weight.
2. *"Create-a-Pizza Cook-Off."* For a snack, creative cooking, or Italian cooking unit, have students prepare the lower fat pizza recipes they developed for the "Create-Your-Own-Pizza" contest. Appoint student judges to pick the winner—the entry with the best appearance, flavor, and nutritional benefits.
3. *"Lower Fat Food Preparation."* In foods units, have students prepare lower fat recipes, such as those on pages 9, 10, and 11 of the bulletin on fat: Light Beef Stroganoff in a meat unit; Italian Fish Rollups in units on fish or one-dish meals; Turkey Divan in units on poultry or one-dish meals; Squash-Broccoli Medley in a unit on vegetables; Chili Bean Dip in units on snacks, vegetables, vegetarian cooking, or Southwest regional foods; Yogurt-Dill Salad Dressing in units on salads or dairy products.
4. *"Saturated vs. Unsaturated Fatty Acids."* Using the information on pages 1, 2, and 4 of the bulletin on fat and pages 15 and 16 of the *Dietary Guidelines for Americans* pamphlet (HG 232), define saturated

and unsaturated fatty acids, and talk about their sources. Consider this activity:

- Have students display and label fats to show that fats higher in saturated fatty acids are usually solid and that fats higher in unsaturated fatty acids are usually liquid. Palm and coconut oils, which contain large amounts of saturated fatty acids, are notable exceptions.

5. *''The Cholesterol Question.''* Using the information on pages 1 and 2 of the bulletin on fat and pages 15 and 16 of the *Dietary Guidelines for Americans* pamphlet (HG 232), define cholesterol, explain its role in human health, and discuss food sources. Consider these activities:

- Before discussing food sources, orally quiz students on the cholesterol content of food. Use questions 2, 4, 6, and 8 from the true-false quiz on page 3 of the bulletin on fat.
- Clarify the difference between dietary cholesterol and blood cholesterol. Dietary cholesterol is present in food. Blood, or serum, cholesterol is a substance that circulates in the bloodstream. Some is made in the body. Blood cholesterol levels of many, but not all, people are increased by diets with too much fat, saturated fatty acids, calories, and cholesterol.
- Have students arrange foods with cholesterol labeling from least to most cholesterol, then draw conclusions.

Activity Sheet for Lesson 4

Week 4
Free

A Weekly ◆ Newspaper on

Choices

Food, Nutrition, and Health For the Young Crowd

For Today's Youth ... Health News

WASHINGTON, D.C.—According to many scientists, eating less fat makes good health sense. Most Americans, including teenagers, eat more than they should.

For some people, high-fat diets increase the risk of heart attacks, strokes, and other health conditions in later life.

America's youth are urged to start now—avoid too much fat in their everyday food choices. For many teens, that may mean fewer fries and high-fat snack foods. The result may be a longer, healthier life.

Inside . . .

Exclusive—Lean Machine, the hot rock band, reveals their secrets for keeping lean and mean! Learn how they jazzed up their diets with more vegetables and fruit and how they cut down on fat and calories!

Chefs Say, "There Goes the Fat!"

CHICAGO—"Get cooking! Cut the fat! Make it lean!" Teenage chefs are talking about these ten easy tips for trimming the fat in their food preparation:

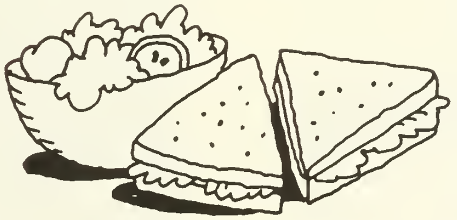
1. Use lower fat versions of milk, cheese, and yogurt.
2. Think substitutes. Trade lowfat yogurt for sour cream and whipped lowfat cottage cheese for mayonnaise.
3. Eat lean. Choose lean meat, fish, poultry, and dry beans and peas as protein sources. Sausage, bacon, and heavily marbled meats have more fat.
4. Trim the fat—from meat.
5. Use a nonstick pan. You won't need added fat for cooking.
6. Watch out for fried foods. Bake, broil, steam, or boil instead.
7. Go skinless. Remove skin from poultry before cooking.
8. Limit sauces, gravies, butter, margarine, mayonnaise, and oil.
9. Squeeze a lemon. Try lemon juice on salads or use limited amounts of oil-based dressings.
10. Skim the fat. Chill meat or poultry broth, then spoon off the hardened fat before using the broth.

Fast Food Chain Announces Menu

Good Bites, a national fast-food chain, just announced its new "Eat Healthy" menu. Ten items have been added to the menu to allow consumers choices of nutritious, reduced-fat foods.

Good Bites' president, Dana Good, said the "Eat Healthy" menu was a progressive step for the fast-food industry. Local health professionals lauded the chain for offering a more varied menu with lower fat options.

In the past, few reduced-fat options could be ordered. The new menu provides a variety of nutritious alternatives—lowfat milk, salads, fruit juice, lean meat and chicken sandwiches, pita-pocket bread stuffed with vegetable salad, and steamed vegetables—for people who wish to cut fat without losing out on nutrients and good taste!



Chinese Export Cooking Method

HONG KONG—A noted cooking expert recently completed a 21-day U.S. tour promoting the Chinese art of stirfry cooking.

The book, *Stirfry for Health*, describes the benefits. "Stirfrying is fast, easy, and healthful. While traditional frying uses a lot of oil, stirfrying uses only a very small amount. So the fat content of the food is much lower. What's more, the quick cooking time helps foods retain nutrients."

Try this easy stirfry method next time you cook: Simply heat a small amount of vegetable oil in a frypan or Chinese wok, just enough to thinly coat the bottom of the pan. Add thinly sliced vegetables and seasonings. Cook for about 3 minutes, stirring constantly. Serve at once.

For a nutritious main dish meal, the author suggests, "Add small pieces of meat, poultry, or seafood, and cook. Then serve with rice."

NEXT WEEK'S FEATURE: High-Tech Computers Plan Lower Fat Meals

Attention Readers! Create-Your-Own-Pizza Contest

Win big! Win the prize of a lifetime! As a Choices reader, you're eligible to enter the "Create-Your-Own-Pizza" contest.

Create an original pizza by changing the Pepperoni Cheese Pizza recipe below so it has less fat. You can change the ingredients or the procedure. Create-your-own-pizza recipes will be judged on creativity and the use of lower fat ingredients, cooking procedures, taste, and appeal.

Contest rules:

1. All entries must be clearly written or typed on a separate sheet of paper.
2. Lower fat ingredients and recipe changes must be underlined.
3. Entrants must be enrolled in a home economics class.

Pepperoni Cheese Pizza

1 12-inch unbaked pizza crust
¼ cup chopped onion
1 tablespoon butter or margarine
8-ounce can tomato sauce
1½ teaspoons oregano leaves
⅛ teaspoon pepper
4 ounces sliced pepperoni
⅓ cup sliced black olives
4 ounces shredded whole-milk mozzarella cheese

Preheat oven to 400° F. Place pizza crust on an ungreased baking sheet.

Saute onion in melted butter or margarine in a frypan. Remove from heat. Mix in tomato sauce, oregano, and pepper. Spread sauce over crust.

Arrange pepperoni, black olives, and cheese over pizza crust.

Bake for 20 minutes or until crust browns lightly. Serves 4.

Lesson 5

Camp Fiberfield

Eat Foods with Adequate Starch and Fiber

Objectives...

After completing the lesson, students will be able to—

- define dietary starch and fiber,
- state the reasons for eating a diet adequate in starch and fiber,
- identify sources of starch and fiber, and
- evaluate starch and fiber in their own diets.

Key Points...

1. Starch is a complex carbohydrate. Dietary fiber is plant material that humans cannot digest.

2. Carbohydrates are a major source of energy. In addition, foods high in complex carbohydrates provide many essential nutrients and fiber.

3. Dietary fiber helps to move waste through the digestive system, so it helps prevent and treat constipation and some conditions that irritate the bowel.

4. Grain products and starchy vegetables are good sources of starch.

5. Vegetables, fruits, whole-grain products, dry beans and peas, nuts, and seeds contribute fiber. The form of the food also affects fiber content.

Notes to You...

- This lesson can be incorporated into foods units on grains, fruits, vegetables, legumes, or baking.

Lesson Plan...

1 Introduce the concepts of starch and fiber. First display the table sugar and the flour. Ask:

- **What do these ingredients have in common?**

Point out:

- **Both ingredients are carbohydrate-rich. Table sugar, one of several types of sugars, is a simple carbohydrate, and flour contains complex carbohydrate called "starch."**

Review the definition of calories, then probe further:

- **What are calories?** (Unit of energy.)
- **What nutrients provide calories?** (Carbohydrate, fat, and protein.)

2 Through discussion, compare the calories and nutrients in sugars and starchy ingredients. Ask:

- **How would you compare the calories and the nutrients in these ingredients?**

Display the card signs on sugar and flour. Say:

- **One tablespoon of table sugar has 45 calories and almost no nutrients except carbohydrate.**
- **One tablespoon of enriched flour has 28 calories and many nutrients—protein, B vitamins, and iron—besides carbohydrate.**
- **Unlike sugars and sweets, starchy foods are good sources of vitamins and minerals as well as calories.**
- **Part of the Dietary Guideline we'll learn about today, is: "Eat foods with adequate starch."** Write the statement on the board.

3 With another display, introduce the concept of fiber. Display the apple juice, applesauce, and a whole, unpared apple. Ask:

- **What makes these three foods alike?** (All are forms of apple; all belong in the fruit group; all provide some vitamins and minerals.)
- **What makes these three foods different?** (Different processing method.)

Materials for Learning...

1 tablespoon table sugar on a plate
1 tablespoon enriched white flour on a plate
5- × 8-inch cards
chalkboard, chalk *or* large sheet of paper, marker
3/4 cup apple juice
1/2 cup applesauce
whole, unpared apple
various whole grains (For a list, see page 2 of the bulletin on starch and fiber—HG 232-4.)
"Check Your Diet for Starch and Fiber" self-test from page 41
students' 7-day food records from Lesson 2
"Camp Fiberfield" activity sheet from page 24

★ ★ ★ ★

- Make signs on 5- × 8-inch cards: 1 tablespoon sugar—45 calories, no nutrients but carbohydrate; 1 tablespoon enriched flour—28 calories, many nutrients; 3/4 cup apple juice—0.2 gram fiber; 1/2 cup applesauce—2.1 grams fiber; whole, unpared apple—3.6 grams fiber; name of each whole grain.
- Duplicate "Check Your Diet for Starch and Fiber" and "Camp Fiberfield" for each student.

Explain:

- **Fiber is plant material that we can't digest.**
- **Processing may affect a food's fiber content. Some fiber may be lost in processing.**

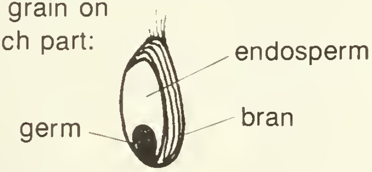
Ask:

- **Which food has the most fiber? The least?** Display the card signs for the juice, applesauce, and apple next to each fruit. Point out:
- **An unpared apple has more fiber than applesauce and much more than apple juice.**
- **Fiber comes from several sources. Many fruits and vegetables, especially those with edible skins, stems, or seeds, are good sources. So are dry beans and peas, nuts, and whole grains.**
- **Today's Dietary Guideline has a second part: eat foods with adequate fiber.** Add "and fiber" to the statement on the board.

4 Show a variety of whole grains to introduce them as a fiber source. Explain:

- **These are excellent fiber sources. Can you identify what they are?** Label each whole grain with a card sign.
- **Each is a whole grain. What are whole grains?** (Grains with nothing removed in processing.)

Draw a whole kernel of grain on the board, and label each part:



Explain the milling process and the nutrients in each grain part. For background, refer to pages 2 and 3 of the bulletin on starch and fiber. Ask:

- **Which is more nutritious—flour made from just the endosperm or flour made from the whole grain?** (Whole grain. It contains the bran and germ with most of the fiber, vitamins, and minerals.)

Present the term "enriched":

- **Milling of flour and rice to remove the bran and the germ also removes the vitamins, minerals, and fiber that these parts contain. Enrichment adds back some of the B vitamins and iron. But the fiber is not added back.**

5 Have students evaluate starch and fiber in their diets. Ask:

- **Do you eat enough starch and fiber?**

Distribute the self-test "Check Your Diet for Starch and Fiber." Have students use their 7-day food records, completed earlier, as a reference. Say:

- **Score your food choices to see how often you eat foods high in starch and fiber.**

Give students time to complete the self-test. Then discuss students' responses:

- **Who has several checkmarks in the last column?** Explain that the best answer for all of the items is "almost daily."
- **What do checkmarks in the last column say about your diet for those 7 days?** (Diet may have adequate amounts of starch and fiber.)

6 Discuss the reasons for eating a diet containing adequate starch and fiber. Refer to pages 1 and 2 of the bulletin on starch and fiber:

- **Carbohydrates are a major source of energy in the diet. Foods high in complex carbohydrates also provide many essential nutrients and fiber.**
- **Dietary fiber helps move waste products through the digestive system. Therefore, it helps in preventing and treating constipation and some conditions that irritate the bowel.**
- **When you cut down on fat and sugars, as the Dietary Guidelines suggest, you may need to increase the amount of starchy foods you eat to supply your body's energy needs.**
- **Some people think that starchy foods are fattening. That's not true. It's the add-ons—cream sauce, butter, etc.—that make calories high. What are other examples?**

7 Have students apply their knowledge of starch and fiber by adjusting a fictitious camp menu. Distribute the activity sheet "Camp Fiberfield." Then go over the instructions. Say:

- **Suppose you're a counselor at Camp Fiberfield. One of your jobs is to help make up menus. On the sheet, you'll see the cook's instructions.**
- **In small groups, work on this menu to add more starch and fiber. Make sure the menu has variety and includes foods you think kids like!**

Divide students into groups. Give them time to adjust the menu. Then, as a class, review the reasons for providing adequate starch and fiber in the camp menu. Talk about their recommendations for improving the menu. The menu should have at least the minimum number of servings from the five major food groups; see page 6 of the bulletin on variety.

Learning More...

1. *"What's on a Label?"*. Referring to page 3 of the bulletin on starch and fiber, discuss the use of breakfast cereal and bread labels as sources of information on carbohydrate and fiber.
2. *"That Whole-Wheat Goodness."* In units on quick breads, yeast breads, or cookies, experiment to increase fiber in recipes. Substitute whole-grain flour for half the white flour. Have students make another recipe using white flour only, then compare the differences in flavor, texture, and appearance.
3. *"Cooking with Complex Carbohydrates."* In foods units, have students prepare recipes high in starch and fiber, such as those on page 4 of the bulletin on starch and fiber: Capitol Hill Bean Soup in units on soup or legumes; Pasta Primavera in units on pasta, one-dish meals, or Italian cooking.

CAMP FIBERFIELD

Dear Counselor:

I'm pleased you can help with the menus. They need some work! At Camp Fiberfield, we promise to provide menus that follow the Dietary Guidelines. The menus below don't have enough starch and fiber. What's more, they don't provide enough variety, *and* they're boring! kids won't like them.

Could you please circle the menu items we could change and write in your substitutions? I included a short list of foods high in starch and fiber for you to look at.

Thanks in advance for your hard work.

Cook Bran

Some foods for starch:

- breads
- breakfast cereals
- pasta, such as spaghetti and noodles
- rice
- dry beans and peas
- starchy vegetables such as potatoes, corn, peas, lima beans

Some foods for fiber:

- whole-grain breads
- whole-grain breakfast cereals
- whole-wheat pasta
- vegetables, especially with edible skins, stems, seeds
- dry beans and peas
- fruits, especially with edible skins or seeds
- nuts and seeds

Camp Fiberfield Menu #5

Breakfast

Scrambled egg ______

Toast (from white bread) with jam, margarine ______

Grapefruit juice ______

Milk ______

Lunch

Tomato soup ______

Fish sticks ______

Lime gelatin ______

Milk ______

Dinner

Baked chicken ______

Mashed potatoes with gravy ______

Canned peach halves ______

Vanilla pudding ______

Milk ______

Snacks

Candy bar ______

______

Counselor's Name

Lesson 6

It's A Real Tradeoff

Avoid Too Much Sugar

Objectives...

After completing the lesson, students will be able to—

- define added sugars and caloric sweeteners,
- state the reasons for avoiding a diet high in sugars,
- identify sources of added sugars,
- evaluate how often they eat foods high in added sugars, and
- describe ways to select and prepare foods to limit added sugars in the diet.

Key Points...

1. Sugars are carbohydrates. Some are naturally present in nutritious foods such as milk and fruits. Others are added to foods.
2. Added sugars provide energy, or calories, but almost no nutrients.
3. There are many types of added sugars and sweeteners—table sugar, corn syrups, honey, and molasses, for example.
4. A high-sugar diet increases the risk of developing tooth decay in some people.
5. Foods high in added sugars may replace more nutritious foods in the diet.
6. Through wise food selection and preparation, people can control added sugars in their diets.

Notes to You...

- This lesson may be incorporated into units on weight control or desserts.
- Before this lesson, collect or have students bring labels or empty food containers with labels to class: jam or jelly, chocolate bar, fruit drink or punch, cola, fruit canned in heavy syrup, fruit canned in light syrup, lowfat vanilla yogurt, lowfat fruit yogurt, ice cream, white layer cake with chocolate frosting (may be a mix), oatmeal cookies, and apple pie.

Lesson Plan...

1 Show that sugars are added to foods and beverages during processing. Hold up a 12-ounce can of orange soda. Say:

- **When you cook, you follow a recipe. Manufacturers also follow recipes or formulas when they process food. This soda was prepared from a recipe.**

Materials for Learning...

12-ounce can orange soda (*not* diet soda or a kind with fruit juice)
12 ounces club soda (For demonstration. You'll need more—12 ounces for every 4 students—for tasting.)
table sugar
orange extract
red and yellow food coloring
12-ounce clear tumbler (For demonstration. You'll need more to prepare for tasting.)
measuring spoons
spoon
small cups for tasting, one per student
empty food packages or labels (See "Notes to You...")
chalkboard, chalk *or* large sheet of paper, marker
1 box sugar cubes
"It's a Real Tradeoff!" activity sheet from page 28
scissors
"Rating Your Diet: How Sweet Is It?" self-test from page 42
students' 7-day food records from Lesson 2

★ ★ ★ ★

- Make three copies of "It's a Real Tradeoff!"
- Duplicate "Rating Your Diet: How Sweet Is It?" for each student.
- On the chalkboard or large paper, copy the ingredient label (pink box) and "Names of Sugars Used in Foods," both from page 3 of the bulletin on sugar (HG 232-5).

Divide the class into groups to brainstorm and write a formula, or "recipe," for orange soda. Then have them compare ideas with the class. Say:

- **As a class, we're going to make an orange soda to see just what it *does* contain.**

Pour 12 ounces of club soda into a tumbler. Say:

- **Club soda is carbonated water. It has no sugar and almost no added flavor.**

Have a student look at the ingredients listed on the orange soda can. Ask:

- **What will you add for sweetness?** (Table sugar.)

Point out that manufacturers use other sugars, such as corn syrups.

- **How much sugar will you add?** Tell them that a 12-ounce orange soda or other soft drink has the equivalent of about 9 to 12 teaspoons of sugars or sweetener. Diet sodas are exceptions.

Measure 12 level teaspoons of table sugar into the club soda, and mix until dissolved. Ask:

- **Who would enjoy drinking this?** Point out that sugars and water are the main ingredients in soft drinks.
- **What else is added for flavor to an orange soda?** (Orange flavoring.)

Mix 1/4 teaspoon orange extract into the "soda." Ask:

- **What provides the color?** (Food coloring.)

Mix two drops of red food coloring and three drops of yellow food coloring into the soda mixture. Ask volunteers to make enough "soda" for the class to taste, then pour samples for tasting. Have students compare the recipe, in particular the sugars content, with the recipes they initially proposed. Ask:

- **What does this demonstration tell you about sugars in food?** (Added sugars are part of many processed foods; foods may have more sugars than people think.)
- **What do you think is the total amount of sugars you consume from soft drinks in a typical week?** Allow time to calculate, then talk about answers.

2 Identify the lesson objective. Say:

- **Today you'll learn about another Dietary Guideline—"Avoid too much sugar."** Write the Guideline on the board.

3 Have students examine ingredient labels to see the different sugars that are added to many processed foods. Divide students into three groups, and distribute food packages/labels to each group: (1) sugary foods—jam or jelly, chocolate bar, fruit drink or punch, and cola; (2) foods with sugars added—fruit canned in heavy syrup, fruit canned in light syrup, lowfat vanilla yogurt, and lowfat fruit yogurt; and (3) sweet desserts—ice cream, white layer cake with chocolate frosting, oatmeal cookies, and apple pie. Say:

- **Look at your food packages or labels. Hold up the foods which have a sweet flavor.** All foods should be held up.
- **Why do you think these foods are sweet?**
- **Do packages give you any clues to sweetness?**

Display the ingredient label copied from the bulletin on sugars. Explain:

- **Sugars are ingredients in many processed foods. You can see that sugars are added by reading the ingredient list on a food label.** Circle "sugar" on the displayed ingredient label.
- **Which food packages or labels have "sugar" listed as an ingredient? Hold them up.** Not all packages/labels will be held up.
- **What else adds sweetness to these foods?** (Added sweeteners other than table sugar, ingredients that are naturally sweet.) Refer to page 2 of the bulletin on sugars for background.

Display the "Names for Sugars" chart copied from the bulletin on sugar. Explain:

- **Table sugar is the sweetener most people know about and use at home. But sugars come in many different forms and have many names.**
- **Look at the ingredient label on the board. What other two kinds of sugars are listed?** (Dextrose, corn syrup.) Circle them.
- **Food ingredients must be listed on the label in order by weight—from most to least. On this list, what ingredient is present in the greatest amount?** (Bleached flour.)
- **What kind of sugar is present in the greatest amount?** (Sugar.)
- **What ingredient is present in the least amount?** (Artificial colors.)
- **What kind of sugar is present in the least amount?** (Corn syrup.)
- **Because this list shows three kinds of sugars as the second, fourth, and sixth ingredients, what might you say about the food?** (Probably high in sugars.)

4 As a hands-on activity, have groups of students identify kinds of sugar in products and, using sugar cubes, have them graphically display the approximate amount of these sugars. Give each group a copy of the activity sheet "It's a Real Tradeoff!" Say:

- **Each box on the activity sheet is a small display sign for one food showing some tradeoffs. The signs show approximate amounts of sugars in these foods. The foods on each side of the equation have about the same amount of nutrients. You can see the differences in sugars and fat.**
- **Clip the small signs for your group's labels or packages.**
- **Read the labels, then write the names of each sugar listed on the blank line on the appropriate signs.**
- **Create a display with sugar cubes, the display signs, and the packages or labels to show the total amount of sugars your foods contain.** Tell them how many cubes equal 1 teaspoon of table sugar.

Have each group appropriately label their display—"Sugary Foods," "Foods with Sugar Added," or "Sweet Desserts"—with the signs from the activity sheet. Add the title "It's a Real Tradeoff!" After the displays are complete, discuss the tradeoffs:

- **What does this display tell about sugars in**

food? (Sugars are in many foods; foods differ in sugars content.)

- **What can you say about the sugary foods?** (Foods that are mainly sugars provide few or no nutrients.)
- **What did you learn from the display on sugars added to fruit and yogurt?** (Sugars are added to processed foods in varying amounts; similar nutrient amounts can be obtained from other foods without the added sugars.)
- **What have you learned from the dessert display?** (Sweet desserts contain some nutrients from ingredients like enriched flour or milk, but many contain considerable amounts of sugars and fat.)
- **What different types of sugar were added to these products?** Answers will vary.

5 Talk about the reasons for avoiding too much of the various sugars. For background, refer to pages 1 and 2 of the bulletin on sugars and pages 19 and 20 of the *Dietary Guidelines for Americans* pamphlet (HG 232). Focus on these issues:

- **Tooth decay is the major health problem related to eating too much sugar. The amount, frequency, and form (stickiness or chewiness) of sugar-containing foods affect their ability to promote decay. The more frequently you eat sugars and sugar-containing foods, the greater your chances of developing tooth decay. Even sugars naturally present in fruit are linked to tooth decay, especially when eaten between meals. The same is true for starches.**
- **Sugars are carbohydrates. From a nutritional standpoint, carbohydrates do one main job—they provide calories, or energy. Foods that contain sugars naturally such as fruits and milk provide important nutrients in addition to carbohydrates. Sugars added to foods add only carbohydrates.**
- **What happens when you eat more calories than you need for growth, maintenance, and activity?** (You gain weight.)
- **Scientific evidence doesn't indicate, as some people have thought, a direct link between sugars and obesity, adult-onset diabetes, heart disease, and hyperactivity. However, high calorie intake, whether from sugars or other sources, can lead to obesity, and obesity is linked to heart disease and adult-onset diabetes.**
- **Some people substitute foods high in sugars—such as soft drinks—for more nutritious foods—such as milk. So their diets may not have the amounts of nutrients essential for health.**

6 Have students evaluate sugars in their diets. Distribute the self-test "Rating Your Diet: How Sweet Is It?" Have students use their 7-day food records, completed earlier, as the reference. Say:

- **Score your own food choices to find out how often you eat foods which may be high in sugars.**

Give students time to complete the self-test. Explain any terms they don't know. Discuss students' responses:

- **How many of you have several checkmarks in the last two columns?**
- **What might your answers say about your diet?** (The more often I ate the foods on the self-test, the more sugars I probably ate.) Point out that some of these foods have more sugars than others.

7 Have students go back to their groups to brainstorm ways they could trade off foods in their 7-day food records to cut down on added sugars. Have them refer to the "It's a Real Tradeoff!" display. Each group should make five recommendations. Come back together as a class, and discuss their ideas. Refer to page 4 of the bulletin on sugars for additional ideas.

8 As a quick post-test, give students the true-false test "Sugar: Fact or Fiction?" on page 1 of the bulletin on sugars. Review answers on Page 8 of the bulletin.

Learning More...

1. *"Sugar Sleuth."* Send students sleuthing for different kinds of sugars at home or at the supermarket. Clues are on food labels. As detectives, they should find the food(s) listing the largest number of sugars and sweeteners such as corn syrup and dextrose. As evidence, each "detective" should write down the food's name and ingredient list with each form of sugar circled.
2. *"Reduced-Sugar Food Preparation."* In foods units, have students prepare reduced-sugar recipes, such as the recipes on pages 5 and 6 of the bulletin on sugars: Strawberry-Yogurt Popsicles in units on snacks or dairy products; Whole-Wheat Raisin Cookies in units on snacks or cookies; Tapioca Pudding in units on desserts or dairy products; Layered Fruit Dessert in units on fruits or desserts; Carrot-Pineapple Cupcakes in units on fruits, vegetables, snacks, or cakes.
3. *"Bake-Off with Less Sugar."* Have students create reduced-sugar recipes for a class "bake-off contest." Have them experiment by using 25 percent less sugar in standard recipes for baked products and then prepare their recipes for the "bake-off" contest. Judge the baked goods for flavor, appearance, and reduced-sugar content.

Activity Sheet for Lesson 6

IT'S A REAL TRADEOFF!

SUGARY FOODS

1 teaspoon jam or jelly
=
1 teaspoon sugar, syrup, or molasses

Sugar: ____________

1-ounce chocolate bar
=
2 teaspoons fat
+
5 teaspoons sugar

Sugar: ____________

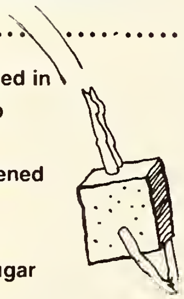
12 ounces fruit drink, ade, or punch
=
12 teaspoons sugar

Sugar: ____________

12 ounces cola
=
9 teaspoons sugar

Sugar: ____________

FOODS WITH SUGAR ADDED



½ cup fruit canned in heavy syrup
=
½ cup unsweetened fruit
+
4 teaspoons sugar

Sugar: ____________

½ cup fruit canned in light syrup
=
½ cup unsweetened fruit
+
2 teaspoons sugar

Sugar: ____________

8 ounces lowfat vanilla yogurt
=
8 ounces lowfat milk
+
4 teaspoons sugar

Sugar: ____________

8 ounces lowfat fruit yogurt
=
8 ounces lowfat milk
+
7 teaspoons sugar

Sugar: ____________

SWEET DESSERTS

½ cup ice cream
=
⅓ cup skim milk
+
2 teaspoons fat
+
3 teaspoons sugar

Sugar: ____________

1⁄16 of white layer cake with chocolate frosting
=
1 slice bread
+
3 teaspoons fat
+
6 teaspoons sugar

Sugar: ____________

2 oatmeal cookies
=
1 slice bread
+
1 teaspoon fat
+
1 teaspoon sugar

Sugar: ____________

⅙ of 9-inch apple pie
=
2 slices bread
+
⅓ medium apple
+
3 teaspoons fat
+
6 teaspoons sugar

Sugar: ____________

Lesson 7

A Scavenger Hunt—For Sodium

Avoid Too Much Sodium

Objectives...

After completing the lesson, students will be able to—

- state the reasons for avoiding too much sodium,
- identify food sources of sodium,
- evaluate how often they eat high-sodium foods, and
- describe ways to select and prepare foods to moderate sodium in the diet.

Key Points...

1. Sodium, an essential nutrient, helps the body maintain normal blood volume and blood pressure and helps nerves and muscles function.
2. High-sodium diets increase the risk of high blood pressure among some people and aggravate high blood pressure once it exists. High blood pressure increases the risk of heart attacks, strokes, and kidney disease.
3. Sodium is added to many foods to flavor them or for functional purposes (see page 2 of the bulletin on sodium—HG 232-6).
4. Food labels can help identify high-sodium foods.
5. Careful food selection and preparation help people to control the sodium in their diets.

Notes to You...

- This lesson may be incorporated into a foods unit on seasonings or into units on snacks or eating out.
- Students should know about food labeling before this lesson. Lessons 3 and 6 teach students to read labels.
- Recent regulations make it mandatory to include sodium information on nutrition labels (rather than optional, as indicated on page 5 of HG 232-6).

Lesson Plan...

1 Have students see how much salt they add at the table. Divide students into groups. Say:

- **How much salt do you shake on food at the table? Do a quick test.**

Give students instructions and time for the activity described at the bottom of page 4 of the bulletin on sodium. Say:

- **How much salt did you use?**

2 Write "The Connection: Salt → Sodium" on the board. Say:

- **What's the connection between salt and sodium?**
- **Salt is made of sodium and chloride.**
- **About one-third of the sodium most people consume comes from salt added to food in cooking or at the table. The rest is either naturally present in food or added in processing.**
- **If you sprinkled about 1/8 teaspoon, that amounts to 250 milligrams of sodium.**
- **About how many milligrams of sodium did you shake?** For salt-sodium conversions refer to page 2 of the bulletin on sodium.
- **Although we need some sodium to stay healthy, most of us eat more than we need.**
- **The Dietary Guideline we'll learn about today is: "Avoid too much sodium."** Write the Guideline on the board.

3 Discuss the functions of sodium in the body. Say:

- **What does sodium do for you?**
- **Sodium helps regulate your body fluids. It helps your body maintain its normal blood**

Materials for Learning...

chalkboard, chalk *or* large sheet of paper, marker
For each group of students:
  salt shaker
  wax paper
  dinner plate
  measuring spoons
"Where's the Sodium in Your Diet?" self-test from page 42
students' 7-day food records from Lesson 2
"A Scavenger Hunt—for Sodium" activity sheet from page 31
packages from processed foods with ingredient and, if possible, sodium labeling (including some labeled as having less sodium)

★ ★ ★ ★

- Duplicate "Where's the Sodium in Your Diet?" and "A Scavenger Hunt—for Sodium" for each student.
- On the board, copy the nutrition label (gray box) and the ingredient label (orange box) from page 5 of the bulletin on sodium.

volume and blood pressure. It's needed to help your nerves and muscles function.
- **The safe and adequate amount of dietary sodium is estimated at 1,100 to 3,300 milligrams daily for adults and slightly less for teens. Many Americans consume much more.**

4 Discuss the reasons for avoiding too much sodium. Refer to page 1 of the bulletin on sodium and pages 21 and 22 of the *Dietary Guidelines for Americans* pamphlet (HG 232). Say:
- **What is a risk factor?** (Condition that may increase the chance that something will happen.)
- **For some people a high sodium intake increases the chance of developing high blood pressure (hypertension). However, the main concern is for those who already have high blood pressure.**
- **Heredity (if your parents or grandparents had the condition) and obesity are also risk factors for high blood pressure.**
- **Having high blood pressure increases risk of heart attacks, strokes, and kidney disease.**

5 Have students evaluate the sodium in their diets. Say:
- **Salting foods at the table is just one way you get sodium in your diet.**

Distribute the self-test "Where's the Sodium in Your Diet?" Have students use their 7-day food records, completed earlier, as a reference. Say:
- **Score your food choices to find out how often you eat foods which may be high in sodium.**

Give students time to complete the self-test. Explain terms they don't know, such as "cured or processed meats" or "commercially prepared meals." Discuss students' responses:
- **How many of you have several checkmarks in the last two columns?**
- **What do these answers say about your diet?**
- **The more checks in the last two columns, the higher your diet is likely to be in sodium.**

Refer to page 4 of the bulletin on sodium for further discussion on the self-test. Point out:
- **Sodium comes to your plate in three ways. Can you identify them?** (1) Salt and condiments added at the table and in cooking, (2) sodium in processed foods, and (3) sodium naturally present in food.
- **Foods contain different amounts of sodium. For example, natural cheese usually has less than process cheese, but most cheeses have more per serving than milk.**

Refer to page 3 of the bulletin on sodium as you talk about sources of sodium in the diet.

6 Send students on a "scavenger hunt" in class to find sodium in processed foods. Start by discussing how sodium is listed on a label. Say:
- **Suppose you were shopping. What clues might you have that a food has a lot of sodium?** (Ingredient label, nutrition label.)

Refer to the ingredient label on the board copied from page 5 of the bulletin on sodium. Say:
- **How do you know that sodium was added?** Circle the four ingredients containing sodium—salt, onion salt, monosodium glutamate, sodium citrate.
- **You learned that sugars have many names on an ingredient list. Sodium has many names, too.**
- **Salt is the *fourth* of twelve ingredients on this list. What might that suggest about the sodium in this food?** (Content is high.)

Explain that sodium is added to preserve and flavor many processed foods. It has other functions, too. Refer to page 2 of the bulletin on sodium. Refer to the nutrition label on the board. Say:
- **Information on sodium content is provided on nutrition labels and on labels for products that claim to be low or reduced in sodium or to have less salt or no salt added.** Show packages of foods processed with less sodium.

Refer to the nutrition label on the board. Say:
- **This label is for oat cereal. How much sodium does it have?** (330 milligrams per ounce.)
- **How does this amount of sodium compare with that estimated to be a safe and adequate level?** (It provides between 10 and 30 percent.) **Remember, the safe and adequate range is 1,100 to 3,300 milligrams of sodium a day for adults and slightly less for teens. You can see why it's easy to get more sodium than you really need.**

7 Distribute the activity sheet, "A Scavenger Hunt—for Sodium." Go over the instructions with students. Have students start their "hunt" in the classroom, then complete the activity sheet as homework by "hunting" for sodium in foods in their kitchen at home or at the supermarket.

8 Write "Shake the Salt Habit" on the board. To apply what they've learned, have students brainstorm 10 ways they might eat less sodium. Refer to page 6 of the bulletin on sodium for ideas.

Learning More...

1. *"The Fast-Food Challenge."* Explain that some fast foods are high in sodium. For background, refer to page 5 of the bulletin on sodium. Have students investigate sodium content in fast foods. Many fast-food chains now have this information available upon request at the restaurant or district office. Have students identify lower sodium choices. Explain that foods can be requested without added salt.
2. *"Reduced-Sodium Food Preparation."* In foods units, have students prepare reduced-sodium recipes, such as the recipes on page 7 of the bulletin on sodium: Chicken Cacciatore in units on poultry or Italian cooking; Cereal Party Snack in units on snacks, entertaining, seasonings, or cereals.

Activity Sheet for Lesson 7

A SCAVENGER HUNT FOR SODIUM

Can you spot the sodium? It's in many of your favorite foods. Some sodium is present naturally in food, but in many processed foods, sodium is an ingredient added to preserve, flavor, or serve other important roles. You'll find that it has many different names on a food label.

Go on a scavenger hunt to find high-sodium ingredients. (You'll find a clue after each one.) Write the name of the food *and* the sodium per serving *if* sodium is listed on the label. If you find other high-sodium ingredients, add them to your list!

	Food	Sodium per Serving	Serving Size
baking powder (*Clue:* used in baked goods for leavening)			
baking soda (*Clue:* also used in baked goods for leavening)			
monosodium glutamate (*Clue:* added for flavor, especially in Chinese foods)			
seasoned salt (*Clue:* any flavored salt is still made with sodium)			
sodium benzoate (*Clue:* used as a preservative)			
sodium caseinate (*Clue:* used as a thickener and a binder)			
sodium citrate (*Clue:* added to control the acid in soft drinks and fruit drinks)			
sodium nitrite (*Clue:* used in some meats to preserve, add color, and prevent food poisoning)			
sodium phosphate (*Clue:* used to keep ingredients from separating or stabilize ingredients in sauces and salad dressings)			
sodium propionate (*Clue:* added to grain products to stop mold)			
sodium saccharin (*Clue:* used to help artificially sweeten)			
Add two high-sodium ingredients of your own: ____________________			
____________________			

BONUS. New reduced-sodium foods on the market! Find three foods in low-sodium form or with reduced or no added salt. Look for the notice on the label.

1. ______________________________

2. ______________________________

3. ______________________________

____

(your name)

Lesson 8

Just Say No!

For Teens: Avoid Alcoholic Beverages
For Adults: If You Drink Alcoholic Beverages, Do So in Moderation

Objectives...

After completing the lesson, students will be able to—
- state the reasons for teens to avoid alcoholic beverages,
- evaluate the nutrient density of alcoholic and nonalcoholic beverages, and
- state five ways to say "no" to alcoholic beverages.

Key Points...

1. Drinking alcoholic beverages is illegal for people under a certain age. The age is specified by the State, usually 18 or 21.
2. Many adults also say "no" to alcoholic beverages.
3. People who drink alcoholic beverages before driving increase their risk of car accidents.
4. Drinking alcoholic beverages during pregnancy can damage the developing fetus.
5. Heavy drinking of alcoholic beverages is related to malnutrition, liver disease, and some forms of cancer.
6. Alcoholic beverages add calories to the diet, but almost no nutrients.
7. There are many good-tasting nonalcoholic beverage alternatives.

Notes to You...

- Present this lesson at your discretion. Successful completion of Lesson 9, the summary lesson, does not require completion of Lesson 8.
- This lesson can be incorporated into substance abuse units in courses on family health and on independent and family living.
- The Dietary Guideline—"If you drink alcoholic beverages, do so in moderation" was intended for adults for whom drinking alcoholic beverages is legal. This wording may be mistakenly viewed by teens as a sign that drinking is okay for them. For teens, use the message "Just say no" or "Avoid alcoholic beverages."
- Young people indicate these reasons for saying "no" to alcoholic beverages. People who drink are more likely to: use poor judgment; make sexual advances and accept them; commit petty crimes or become victims of crime; lose interest in school, family, and good friends; find learning harder; and postpone learning important social skills because they rely on alcoholic beverages to make them relax with others.

Materials for Learning...

chalkboard, chalk *or* large sheets of paper, marker
magazine pictures: cans of regular and light beer; bottles of dry wine, sweet wine, and liquors; cartons of milk; cans of cola, low-calorie soda, club soda, and assorted unsweetened juices
5- × 8-inch cards, marker
"Just Say No!" activity sheet from page 34

★ ★ ★ ★

- On separate 5- x 8-inch cards write "Nutrient dense" and "Calorie dense."
- Duplicate the "Just Say No!" activity sheet for each student.
- Have students clip magazine pictures of beverages.

Lesson Plan...

1 Review the Dietary Guidelines. Ask:
- **What are the Dietary Guidelines?** (Recommendations to help healthy people maintain and perhaps improve their health.)
- **What Dietary Guidelines have we learned about?**
- **Today, we'll learn about a Dietary Guideline on alcoholic beverages. The Guideline for teenagers is: "Just say no" or "Avoid alcoholic beverages."** Write the Guideline on the board.
- **Why do you think a guideline has been set for alcoholic beverages?** Accept a variety of answers.

2 Display the beverage pictures. Using the 5- × 8-inch card signs, have students categorize each picture as nutrient dense or calorie dense. Explain:
- **Like fat, protein, and carbohydrate, alcohol has calories.** On the board, write the calories per gram for each. See page 2 of HG 232-7.
- **What are the five major food groups you need to have a varied diet?** (Breads, cereals, and other grain products; fruits; vegetables; meat, poultry, fish, and alternates; milk, cheese, and yogurt.)
- **These foods are nutrient dense. Why?** (Good nutrient sources without excess calories.)
- **Some other foods are calorie dense. Why?** (Contain calories but few, if any, nutrients.)

- **Arrange these beverages into two groups—nutrient-dense and calorie-dense foods.**

Allow time to arrange the pictures. Point out:

- **Which food group do alcoholic beverages belong in?** (Fats, sweets, and alcoholic beverages.)
- **Why?** (Because they are calorie dense.)

Have students draw conclusions:

- **What can you say about the nutritional value of alcoholic beverages?** (Alcoholic beverages provide calories but few nutrients.)
- **What might happen to heavy drinkers who replace nutritious beverages and food with alcoholic beverages?** (May lead to malnutrition.)

3 Talk about the reasons teens should avoid drinking alcoholic beverages. For background, refer to page 1 of HG 232-7 and page 23 of the *Dietary Guidelines for Americans* pamphlet (HG 232). Say:

- **Besides malnutrition, what other health risks go along with drinking alcoholic beverages?**

Focus on these issues:

- **Drinking alcoholic beverages is illegal for people under a certain age.**
- **People who drink alcoholic beverages before driving increase their risk of car accidents.**
- **Drinking alcoholic beverages during pregnancy can damage the developing fetus.**
- **Heavy drinking is related to liver disease and some forms of cancer.**
- **Avoiding alcoholic beverages is one way to help keep a healthy body healthy!**

4 Have small groups of students explore ways to say "no" to alcoholic beverages using three cartoon case studies. Say:

- **Suppose a friend—someone you really want to be with—offers you a beer. How easily can you say "no"?** Accept any answers. They'll likely say, "It's hard to say 'no' to other teens."
- **Many teenagers—adults too—have trouble saying "no" when people offer them a drink. It's helpful to know why you don't want to drink and to know that other people support what you say.**

Divide the class into small groups. Distribute the activity sheet "Just Say No!" Say:

- **Read each cartoon. Decide how you might answer in the situation pictured. Saying "no" should be enough...but try to think about, even say, how you feel and the reasons why.**
- **Brainstorm five ways you might respond in each cartoon. Write your group's answers next to the cartoon—not in the empty balloon.**

As students work together, they'll see that others share the same problem saying "no." At the same time, they'll experience group support.

5 Talk about the cartoon situations:

- **Cartoon 1 focuses on peer pressure, the desire to please a date and be accepted, and alcoholic beverages as a way to have fun.**
- **Cartoon 2 deals with hostility, denial, slurring of speech as a sign of drunkenness, and the dangers of drinking and driving.**
- **Cartoon 3 deals with health effects of alcohol.**

Talk about students' responses:

- **Good "Just Say No" answers often have three parts—(1) describe the other's behavior, (2) state how that makes you feel, and (3) state why you feel that way.**

These are sample responses for each cartoon—

- *Cartoon 1*—"When you keep pushing me to take a drink, it really makes me angry *because I* don't think you respect my decision."
- *Cartoon 2*—"When you drink and drive, even after only one beer, I get concerned and frightened *because* I don't want to see you or anyone else hurt."
- *Cartoon 3*—"When you give me a hard time about not drinking it really bothers me *because* I want to take care of my body."

6 As reinforcement, have each student "own" one of the five statements by writing it in the empty balloon in the cartoon on his/her sheet. Or students might write another response.

7 End the lesson with a summary. Ask:

- **Why is saying "no" to alcoholic beverages hard for many people?**
- **What are the risks related to drinking alcohol?**
- **How can you avoid being pressured into drinking?**
- **What nonalcoholic beverages could you serve at a party that your guests would like?**
- **What guideline on alcoholic beverages makes the most health sense?** (Avoid alcoholic beverages.)

Learning More...

1. *"Alcoholic Beverages in Advertising."* Discuss how ads encourage drinking.
2. *"Alcoholics Anonymous."* Invite an AA Support Group leader to talk about alcoholism.
3. *"The Nonalcoholic Alternative."* In foods units on beverages, snacks, and entertaining, have students prepare nonalcoholic beverages such as the recipes on page 3 of the bulletin on alcoholic beverages.

For More Information, Contact:

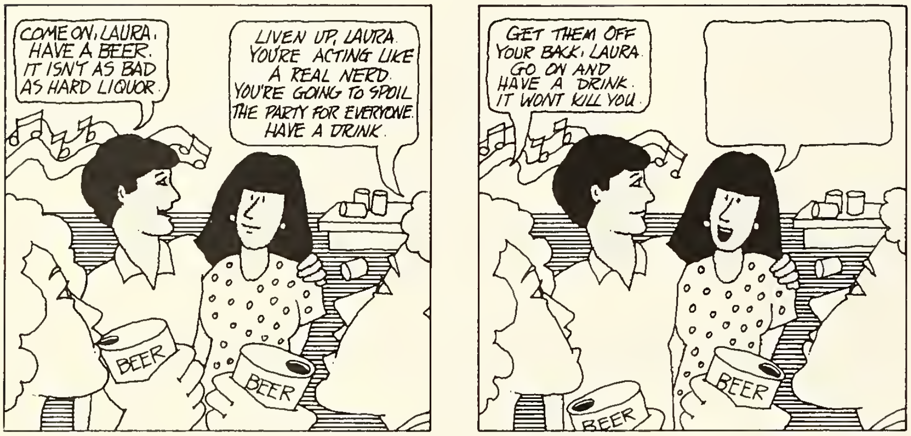
- The Family Information Center, National Agricultural Library, Room 304, Beltsville, Maryland 20705, (301) 344-3719. Ask for the "Pathfinder on Substance Abuse" prepared for educators.
- The Just Say No Foundation, 1777 North California Boulevard, Walnut Creek, California 94596, (800) 258-2766.
- The National Clearinghouse for Alcohol and Drug Information, P.O. Box 2345, Rockville, Maryland 29852.

Activity Sheet for Lesson 8

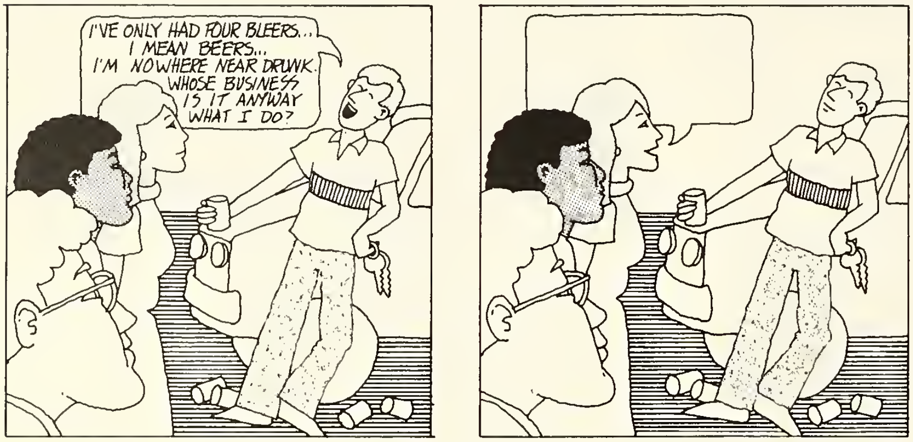
JUST SAY NO!

Saying "no" should be enough! But you may be more confident about saying "no" if you can say how you feel and if you know the reasons why.

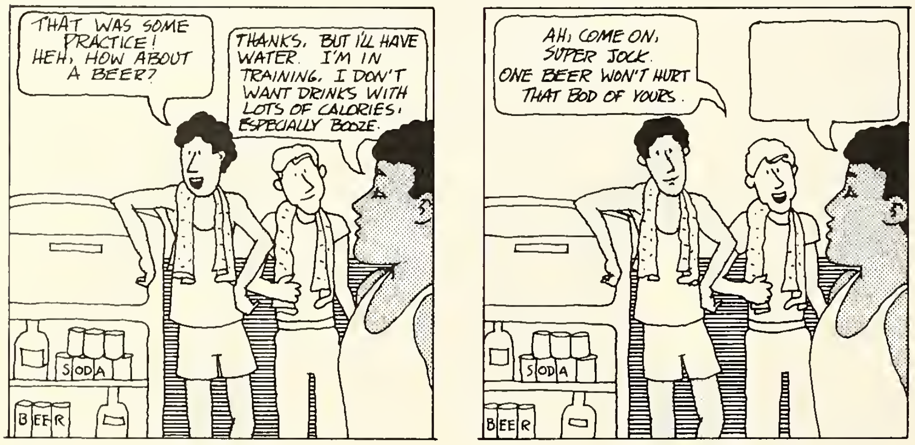
Five Ways to Say "No"


COME ON, LAURA. HAVE A BEER. IT ISN'T AS BAD AS HARD LIQUOR.
LIVEN UP, LAURA. YOU'RE ACTING LIKE A REAL NERD. YOU'RE GOING TO SPOIL THE PARTY FOR EVERYONE. HAVE A DRINK.
BEER
BEER
GET THEM OFF YOUR BACK, LAURA. GO ON AND HAVE A DRINK. IT WON'T KILL YOU.
BEER
BEER

1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________
5. ______________________________


I'VE ONLY HAD FOUR BLEERS... I MEAN BEERS... I'M NOWHERE NEAR DRUNK. WHOSE BUSINESS IS IT ANYWAY WHAT I DO?

1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________
5. ______________________________


THAT WAS SOME PRACTICE! HEH, HOW ABOUT A BEER?
THANKS, BUT I'LL HAVE WATER. I'M IN TRAINING. I DON'T WANT DRINKS WITH LOTS OF CALORIES, ESPECIALLY BOOZE.
SODA
BEER
AH, COME ON, SUPER JOCK. ONE BEER WON'T HURT THAT BOD OF YOURS.
SODA
BEER

1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________
5. ______________________________

Lesson 9

Wanted—Good Food For Good Health

Summary

Objectives...

After completing the lesson, students will be able to—

- describe the appropriate use of the Dietary Guidelines,
- explain the reasons for following the Dietary Guidelines,
- apply the Dietary Guidelines to a variety of food decisions, and
- plan a day's food choices that meet the Dietary Guidelines.

Key Points...

1. The Dietary Guidelines are recommendations to help healthy people maintain and perhaps improve their health.

2. By following the Dietary Guidelines, some people can reduce their risk of certain diseases, such as premature heart attacks, strokes, high blood pressure, adult-onset diabetes, some forms of cancer, tooth decay, and liver disease.

3. Variety and moderation are qualities of a diet that meets the Dietary Guidelines.

4. Dietary Guidelines encourage choice from a variety of foods to ensure that nutrient needs are met and that desirable weight is maintained.

5. To follow the Dietary Guidelines, people don't need to give up the foods they like; they just need to balance food choices to keep calories under control and to moderate intake of fat [saturated fatty acids and cholesterol], sugars, and sodium.

Notes to You...

- This summary lesson helps students apply all of the Dietary Guidelines in planning and selecting meals from a menu.
- This lesson can be incorporated into units on menu planning and eating in restaurants.
- As written, students may discuss the Dietary Guideline on alcoholic beverages in their review. However, students are not encouraged to include alcoholic beverages on the restaurant menu they create.

Materials for Learning...

Class Period 1:
"Wanted—Good Food for Good Health" activity sheet from page 37
cookbooks
variety of restaurant menus
"Food Groups: Some Foods They Contain" information sheet from page 7 of the bulletin on variety (HG 232-1)
students' completed self-tests from Lessons 2 through 7
large sheets of colored paper
markers in various colors

★ ★ ★ ★

- Collect menus from area restaurants.
- Duplicate "Wanted—Good Food for Good Health" and "Food Groups: Some Foods They Contain" for each student.
- Have students bring their self-tests from previous lessons.

Lesson Plan...

Class Period 1:

1 By reflecting back on the news release they wrote for Lesson 1, students review the Dietary Guidelines. Ask:

- **Remember the news story you wrote when you first began learning about the Dietary Guidelines? What did you write about?**
- **What are the seven (six) Dietary Guidelines?** Have students list them.
- **Why were the Guidelines written?** (To help people maintain and perhaps improve their health.)
- **By following the Dietary Guidelines some people can reduce their risk of getting certain diseases. What are these health problems?** (Premature heart attacks, strokes, high blood pressure, adult-onset diabetes, some forms of cancer, tooth decay, and liver disease.)
- **Whom are the Dietary Guidelines meant for?** (Healthy Americans, including teenagers.)
- **Do you have to give up soft drinks or fries if you follow the Dietary Guidelines?** (No. It's not necessary to eliminate any one food from the

diet.) **Why not?** (It's the total diet that counts. People can balance their food choices to get the nutrients and fiber they need and to get enough calories to maintain desirable weight without too much fat [saturated fatty acids and cholesterol], sugars, and sodium.)

2 Have groups of students create a restaurant menu which would allow customers to follow the Dietary Guidelines in selecting a whole day's meals. Distribute the activity sheet "Wanted—Good Food for Good Health." Say:

- **Imagine that our local newspaper carried this announcement in the want ads.** Give students a moment to read the want ad, then discuss and clarify the instructions.
- **Suppose that each group here is one group of applicants. You all would like to open the new restaurant in the new health and recreation center. So you'll complete an application *with a sample menu.***
- **The restaurant's name should spark the interest of customers. You might want the name to suggest the motto—"Good food for good health."**
- **Your menu should include foods for breakfast, lunch, dinner, and snacks. You can list the menu items however you'd like.**
- **Your nutrition statement to customers should include how foods can be chosen from the menu to meet the Dietary Guidelines and why you feel that's important.**
- **What qualities should the menu have?** (Menus should contain a variety of foods from the five major food groups; some foods should be high in starch and fiber; some low in fat, sugars, and sodium; some low in calories; and beverages should be nonalcoholic.)
- **Your customers might appreciate food selection tips or interesting facts about a menu item.**
- **Use the large colored paper and colored markers to create a good-looking menu.**

Suggest references they might use for ideas: cookbooks, real restaurant menus, "Food Groups: Some Foods They Contain," and self-tests from previous lessons. Give students the class period to work on their menus. Perhaps extend the activity as homework.

Class Period 2:

3 Go over the students' menus. Invite the groups to present their menus to the class as if they were making an application to the health and recreation center. Encourage them to explain their menu. Then display the menus in the classroom and have the class select the application and menu which (1) best meet the Dietary Guidelines and (2) sound most creative.

4 As a check, have each student write an order—for breakfast, lunch, and dinner—that meets the Dietary Guidelines from the menu of his/her choice. Have students go over their menu selections to be certain they've chosen enough foods from the five major food groups.

Learning More...

1. *"How Am I Doing?"* Now that students have learned about the Dietary Guidelines, have them do another 7-day food record. Again, have them use the self-tests to judge their food choices and compare their scores. Discuss what changes they have made in their eating patterns and food choices. What changes could they still make to better follow the Dietary Guidelines?
2. *"The Health Column."* Have students imagine that they are health editors for the school paper. Ask each student to write a feature article on one of the Dietary Guidelines. The article should be written to capture the interest of teenagers. Submit the best article for each Guideline for possible publication.
3. *"Ask a Home Economist."* Have students imagine that they are home economists responsible for educating the public. Have them create a consumer brochure on the Dietary Guidelines with tips for sensible eating.
4. *"Decisions."* For review, have students complete these case studies:
   - You love to make bread because you really use your muscles when you're kneading. What kind of bread would you bake, and why?
   - You want a quick lunch. You bake a potato in the microwave oven, then top it with foods you have on hand. What will you use for a topper, and why? Will you eat the potato with or without the skin? Why?
   - You're having an outside chicken barbecue for friends. How would you prepare the chicken, and why?
   - You've just finished a heavy workout and need something to drink. The beverage machine has soft drinks and juice. What would you have, and why?
   - You reach for a breakfast cereal. You have a choice—presweetened or unsweetened. You have sugar and fruit on the counter. What cereal do you choose and what do you put on it? Why?
   - You're packing food for a backpack trip. You want snacks with calories because you need some energy sources. What will you take, and why?

Have students write their own case studies for classmates to think and talk about as well.

Activity Sheet for Lesson 9

Read this want ad—
and notice the
opportunity!
Then file an application
that shows a nutritious,
creative menu.
(Hope you get the business!)

WANTED
Good Food for
Good Health

BUSINESS OPPORTUNITY!

Needed. Restaurant in new health and recreation center. Used by community and school groups. Excellent location. High-traffic area.

Looking for small group of owners with fresh ideas, creativity, and menus that appeal to youthful, health-conscious consumers. Must believe in "good food for good health." Must be able to plan menus that match the Dietary Guidelines. Interested parties must submit applications (see below) with—

- restaurant name.
- sample menu showing menu items. (Include a breakfast menu *and* a lunch/dinner menu with appetizers, light dishes, main dishes, salads, vegetables, breads, desserts, and beverages.)
- nutrition statement about menu items for customers. (Print on inside cover of menu.)
- art for the outside of menu cover.
- any menu tips to help the customer.

Owner and employee benefits: Use of swimming pool, track, basketball courts, volleyball courts, tennis courts, dance studio, and other facilities at center at no cost.

Bring application to: Health and Recreation Center, Wellness Way, Trim City, U.S.A.

APPLICATION FORM

Applicants' Names:

____

____

____

____

Restaurant Name: ______________________________

Date: ______________________________

Bring sample menu with your application.

Self-Test for Guideline 1/Lesson 2

How Does Your Diet Rate for Variety?

Check the box that best describes your eating habits.

	Seldom or never	1 or 2 times a week	3 to 4 times a week	Almost daily
How often do you eat:				
1. At least six servings of bread, cereals, rice, crackers, pasta, or other foods made from grains (a serving is one slice of bread or a half cup cereal, rice, etc.) per day?	☐	☐	☐	☐
2. Foods made from whole grains?	☐	☐	☐	☐
3. Three different kinds of vegetables per day?	☐	☐	☐	☐
4. Cooked dry beans or peas?	☐	☐	☐	☐
5. A dark-green vegetable, such as spinach or broccoli?	☐	☐	☐	☐
6. Two kinds of fruit or fruit juice per day?	☐	☐	☐	☐
7. Three servings of milk, cheese, or yogurt per day?	☐	☐	☐	☐
8. Two servings of lean meat, poultry, fish, or alternates, such as eggs, dry beans, or nuts per day?	☐	☐	☐	☐

Self-Test for Guideline 2/Lesson 3

My Eating Habits: Where Are The Calories?

Calories come from food—all kinds of food. Do you get more or less than you need?

Think about your eating patterns and habits: What, how much, when, where, and why do you eat? For each of these questions, check the answers that best describe your eating patterns and habits.

What do I usually eat?

☐ A varied and balanced diet that includes only moderate amounts of fat and sugars.

☐ Deep-fat-fried and breaded foods.

☐ "Extras," such as salad dressings, potato toppings, spreads, sauces, and gravies.

☐ Sweets and rich desserts such as candies, cakes, pies.

☐ Snack foods high in fat and sodium, such as chips and other "munchies."

☐ Soft drinks (not low calorie).

How much do I usually eat?

☐ A single small serving. ☐ A large serving. ☐ Two servings or more.

When do I usually eat?

☐ At mealtime only.

☐ While preparing meals or clearing the table.

☐ While watching TV or participating in other activities.

☐ While studying.

☐ Anytime.

Where do I usually eat?

☐ At the kitchen or dining room table.

☐ In the school cafeteria or fast food places.

☐ In front of the TV or while studying.

☐ Wherever I happen to be when I'm hungry.

Why do I usually eat?

☐ It's time to eat.

☐ I'm starved.

☐ Foods look tempting.

☐ Everyone else is eating.

☐ Food will get thrown away if I don't eat it.

☐ I'm bored or frustrated.

Could your food choices give you "extra calories"? Write three ways you might change your food habits to avoid eating too many calories—include the "shape-up foods" (low in fat and sugar)

1. ______________________________

2. ______________________________

3. ______________________________

Self-Test for Guideline 2/Lesson 3

Let's Get Physical: A Contract for Fitness

Exercise burns calories. At the same time, it helps you maintain your own best weight—you've got to *move it to lose it*! Exercise also helps make you FIT!

Get physical—and find ways to exercise that are best for you. Make a contract with yourself. Check the activities you promise to fit into your schedule. Add ideas of your own if you'd like.

☐ Use stairs rather than an elevator.

☐ Put more energy into everyday activities.

☐ Take several 1-minute stretch breaks during the day.

☐ Take a walk or actively exercise each day after school.

☐ Join a school or community sports team.

☐ Take a gymnastics, aerobics, or other exercise class.

☐ Develop a "do-it-yourself" home exercise program.

☐ Establish a regular weekly schedule for activities such as swimming, running, bicycling, or tennis.

☐ Play basketball at a court or in your own backyard.

☐ Go dancing.

☐ ______________________________

☐ ______________________________

Contract: I agree to TAKE ACTION and fit "fitness" into my *daily* routine. I know that keeping FIT is a lifetime goal—that includes maintaining my best weight and keeping me as healthy as I can be.

Signed: ______________________________

Date: ______________________________

Self-Test for Guideline 3/Lesson 4

How Do You Score on Fat?

Do the foods you eat provide more fat than is good for you? Answer the questions below, then see how your diet stacks up.

How often do you eat:	Seldom or never	1 or 2 times a week	3 to 5 times a week	Almost daily
1. Fried, deep-fat-fried, or breaded foods?	☐	☐	☐	☐
2. Fatty meats such as bacon, sausage, luncheon meats, and heavily marbled steaks and roasts?	☐	☐	☐	☐
3. Whole milk, high-fat cheese, and ice cream?	☐	☐	☐	☐
4. High-fat desserts such as pies, pastries, and rich cakes?	☐	☐	☐	☐
5. Rich sauces and gravies?	☐	☐	☐	☐
6. Oily salad dressings or mayonnaise?	☐	☐	☐	☐
7. Whipped cream, table cream, sour cream, and cream cheese?	☐	☐	☐	☐
8. Butter or margarine on vegetables, dinner rolls, and toast?	☐	☐	☐	☐

Self-Test for Guideline 4/Lesson 5

Check Your Diet for Starch and Fiber

How often do you eat:	Seldom or never	1 or 2 times a week	3 to 4 times a week	Almost daily
1. Several servings of breads, cereals, pasta, or rice?	☐	☐	☐	☐
2. Starchy vegetables like potatoes, corn, peas, or dishes made with dry beans or peas?	☐	☐	☐	☐
3. Whole-grain breads or cereals?	☐	☐	☐	☐
4. Several servings of vegetables?	☐	☐	☐	☐
5. Whole fruit with skins and/or seeds (berries, apples, etc.)?	☐	☐	☐	☐

Self-Test for Guideline 5/Lesson 6

Rating Your Diet: How Sweet Is It?

Check the box that most closely describes your eating habits to see how the foods you choose affect the amount of added sugars in your diet.

How often do you:	Less than once a week	1 or 2 times a week	3 to 5 times a week	Almost daily
1. Have sodas or other sweetened beverages?	☐	☐	☐	☐
2. Eat sweet desserts and snacks, such as cakes, pies, cookies, and ice cream?	☐	☐	☐	☐
3. Use canned or frozen fruits packed in heavy syrup or add sugars to fresh fruit?	☐	☐	☐	☐
4. Eat candy?	☐	☐	☐	☐
5. Use jam, jelly, or honey on bread or rolls?	☐	☐	☐	☐
6. Add table sugar to your cereal or eat sweetened cereals?	☐	☐	☐	☐

Self-Test for Guideline 6/Lesson 7

Where's the Sodium in Your Diet?

Take a look at the foods you eat. How you prepare and serve them affect the sodium in your diet.

How often do you:	Less than once a week	1 or 2 times a week	3 to 5 times a week	Almost daily
1. Eat cured or processed meats such as ham or hotdogs?	☐	☐	☐	☐
2. Choose canned vegetables or frozen vegetables with sauce?	☐	☐	☐	☐
3. Use commercially prepared meals, main dishes, or canned or dehydrated soups?	☐	☐	☐	☐
4. Eat cheese?	☐	☐	☐	☐
5. Eat salty snacks?	☐	☐	☐	☐
6. Use condiments such as soy sauce, steak sauce, catsup, and mustard?	☐	☐	☐	☐
7. Salt your food before tasting it?	☐	☐	☐	☐

We Want To Hear From You...

We hope that you have found the **Dietary Guidelines Teaching Kit** useful as an instructional resource. After you have used the kit, please take a few minutes to answer the following questions. Your answers will help us plan and develop materials for classroom use in the future.

1. How did you learn about this **Teaching Kit**?

______ district supervisor of home economics instruction
______ home economics teachers
______ publicity flyers
______ professional meetings
______ home economics journals or magazines
______ other (specify) ______________________

2. In what courses have you used (or do you plan to use) this kit? (Check all that apply.)

Used	Plan to Use	
______	______	comprehensive home economics
______	______	basic foods and nutrition
______	______	advanced foods and nutrition
______	______	foreign foods
______	______	child development
______	______	family health
______	______	independent and family living
______	______	vocational food service
______	______	other (specify) ____________

3. With what grade levels have you used (or plan to use) this kit? (Check all that apply.)

______ grade 6
______ grade 7
______ grade 8
______ grade 9
______ grade 10
______ grade 11
______ grade 12
______ other (specify) __________

4. Check the lesson(s) in the **Teacher's Guide** that you taught and star those you rate most successful. Then check the lesson(s) you plan to teach again.

Taught (✓)	(*)	Plan to Teach Again (✓)	
__	__	______	Lesson 1—Overview
__	__	______	Lesson 2—Variety
__	__	______	Lesson 3—Weight
__	__	______	Lesson 4—Fat
__	__	______	Lesson 5—Starch and Fiber
__	__	______	Lesson 6—Sugars
__	__	______	Lesson 7—Sodium
__	__	______	Lesson 8—Alcoholic Beverages
__	__	______	Lesson 9—Summary

5. How many students have you taught (will you teach) this school year using the materials in this kit?

	Females	Males
Taught:	________	________
Plan to Teach:	________	________

6. How satisfied were you with the **Dietary Guidelines Teaching Kit?** Check the appropriate boxes.

	Excellent	Good	Unsure	Fair	Poor
Teacher's Guide	☐	☐	☐	☐	☐
Overview	☐	☐	☐	☐	☐
Lessons	☐	☐	☐	☐	☐
Activity Sheets	☐	☐	☐	☐	☐
Self-Tests	☐	☐	☐	☐	☐
Supplemental Activities	☐	☐	☐	☐	☐
7 Bulletins (HG 232 1-7)	☐	☐	☐	☐	☐
Pamphlet (HG 232)	☐	☐	☐	☐	☐

7. How could the lessons in the **Teacher's Guide** be improved? Indicate the lesson numbers (1 through 9) before each recommendation.

______ more information needed to guide the lesson
______ more supplemental activities needed
______ lesson needed to be better targeted to students
______ activity sheet graphics needed to be better targeted to students
______ more evaluation activities needed
______ other (specify) ______________________

8. Would you recommend the **Dietary Guidelines Teaching Kit** to other teachers?

________ yes ________ maybe ________ no

Explain: __________________________________

9. How did you evaluate student performance?

______ tests
______ monitored activities
______ class discussion
______ one-on-one interview
______ activity sheets
______ other (specify) ______________________

10. What other comments do you have about the **Dietary Guidelines Teaching Kit** and specifically the **Teacher's Guide**?

____
____

11. Optional: Name ___________________________
School ___________________________
Address ___________________________
____
Phone ___________________________

Clip this completed questionnaire on the dotted line. Then fold with the address on the outside, and tape. You need no postage if you mail this in the United States. Thank you for your help.

OFFICIAL BUSINESS
PENALTY FOR
PRIVATE USE, $300

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST CLASS PERMIT NO. 5244 WASHINGTON, D.C.

POSTAGE WILL BE PAID BY U.S. Department of Agriculture

United States Department of Agriculture
Human Nutrition Information Service
Teacher's Guide Evaluation
Room 353
6505 Belcrest Road
Hyattsville, Maryland 20782

Fold over and seal with tape before mailing.